FOURTH SUPPLEMENTAL APPROPRIATION BILL, 1951

FRIDAY, MAY 11, 1951

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D. C.

The subcommittee met at 10 a. m., pursuant to recess, in room F–39, the Capitol, Hon. Carl Hayden (chairman of the subcommittee) presiding.

Present: Senators Hayden, Ellender, Cordon, Young.

DEPARTMENT OF THE INTERIOR

BONNEVILLE POWER ADMINISTRATION

STATEMENTS OF PAUL J. RAVER, ADMINISTRATOR; D. L. MARLETT, ASSISTANT ADMINISTRATOR; JOHN MULCAHY, ENGINEER; AND JOHN D. DAVIS, MANAGER, WASHINGTON, D. C., OFFICE

AMOUNT REQUESTED AND JUSTIFICATION

Senator HAYDEN. The committee will be in order.

In connection with the fourth supplemental appropriation bill, 1951, which is now pending in the committee, a supplemental estimate in the amount of $3,672,000 has been received for the Bonneville Power Administration.

Inasmuch as the Interior Committee is in the process of holding hearings on the regular 1952 bill, this supplemental estimate for 1951 was referred to the Interior Subcommittee for hearing.

We will now hear Dr. Raver on this supplemental estimate, but first I will place in the record a copy of the supplemental estimate, Senate Document No. 38, and also a copy of the Department's justification.

(The documents referred to are as follows:)

"BONNEVILLE POWER ADMINISTRATION

"CONSTRUCTION

"For an additional amount for 'Construction', $3,672,000, to remain available until expended."

On April 26, 1951, the Bonneville Power Administration was notified that the Aluminum Co. of America would locate a 4-potline aluminum plant in the vicinity of Wenatchee, Wash. The plant, which is expected to be in operation July 1, 1952, will depend on Bonneville Power Administration for most of its power supply. In order to serve these needs, the Administration must construct a 150,000-kilovolt-ampere substation, to be known as Valhalla substation, at the site of the plant and two 115-kilovolt transmission lines approximately 6 miles

long, connecting the Valhalla substation with the Columbia substation. In addition, the new defense load will require the substitution at the Columbia substation of a new 150,000-kilovolt-ampere-transformer bank for the existing 50,000-kilovolt-ampere bank. It is anticipated that this estimate will be sufficient to cover the total cost of the entire program.

This supplemental appropriation is necessary to permit the agency to fulfill the defense requirements outlined above. The required transformers and other equipment must be ordered immediately and such work as design, survey, and land acquisition must all be completed by July 1, 1951, if the energization date of July 1, 1952, is to be met.

These facilities were not included in the budget because the decision to locate the defense plant in this area was not made until after the budget had been prepared.

I recommend that the foregoing proposed supplemental appropriation be transmitted to the Congress.

Respectfully yours,

F. J. LAWTON,
Director of the Bureau of the Budget.

CONSTRUCTION

(Supplemental estimate, fiscal year 1951, $3,672,000 in S. Doc. No. 38)

(P. 2, after line 5)

Page 2, after line 5, of the Fourth Supplemental Appropriation Bill, 1951, insert the following:

"DEPARTMENT OF THE INTERIOR

"BONNEVILLE POWER ADMINISTRATION

"CONSTRUCTION

"For an additional amount for 'Construction,' $3,672,000 to remain available until expended."

HOUSE REPORT

No comment made in House report. An estimate was submitted to the Congress subsequent to House Appropriations Committee action on H. R. 3842.

JUSTIFICATION

This amendment will provide a supplemental appropriation of $3,672,000 to provide service to the aluminum plant at Wenatchee.

The Administration was advised by the Aluminum Co. of America on April 26, 1951, that the company had decided to proceed with the erection of a four potline aluminum reduction plant to be located in the vicinity of Valhalla, approximately 10 miles southeast of Wenatchee, Wash. The company also advised that it had already placed orders for its electrical and other long delivery equipment, and that it plans to have the first potline ready to take power in July 1952. The Company will expand the plant so as to reach full production by October 1952 with four potlines, requiring a total of 170,000 kilowatts.

To serve this plant of the Aluminum Co. of America the Administration must construct a 150,000 kilovolt-ampere, 110–13.8-kilovolt substation at the site of the plant. This substation, to be known as Valhalla substation, will be energized by means of four 115-kilovolt lines. Two of these lines will be constructed by the Chelan County PUD from the Rock Island generating plant. The other two 115-kilovolt lines must be constructed by the Administration from our Columbia substation. Each of the Administration's lines will be approximately 6 miles long, of 115-kilovolt wood pole construction and strung with 500,000 circular mil conductor. Material ordering and surveys for these two lines must be accomplished in advance of July 1, 1951. Orders for substantially all of the equipment for Valhalla substation must be placed by July 1, 1951, and design well advanced, to meet the required July 1952 energization date.

The defense load will require major changes in the plan of service to the central Washington area. At Columbia substation, we will remove the existing 50,000-kilovolt-ampere, 220–115-kilovolt transformer bank and install a 150,000-kilovolt-ampere bank. Switchgear will include 115-kilovolt oil circuit breakers for terminating the outgoing lines to Valhalla substation, and for replacement of other 115-kilovolt breakers which will become overdutied following the installation of

the 150,000-kilovolt-ampere transformer bank and the accompanying changes in generation capability and transmission system. Relaying, protective, communication, telemetering and supervsiory control equipment will also be required. Substantially all of the above equipment must be on order by July 1, 1951.

The above line and substation facilities are required to carry out the Administration's agreements with the company and with the Chelan County public utility district regarding the power deliveries to meet the company's defense load requirements.

In view of the extremely tight schedules, to have power available at Valhalla by July 1952 the Administration must proceed immediately with engineering, surveys, material buying, and right-of-way acquisition. Practically all of this work must be completed by July 1, 1951.

POWER PROJECT PLANNED

Mr. RAVER. Supplemental funds in the amount of $3,672,000 are requested to provide power service to a national-defense plant. Construction must proceed on an emergency schedule if power is to be available when required.

The Administration was advised by the Aluminum Co. of America on April 26, 1951, that the company had decided to proceed with the erection of a four-pot-line aluminum-reduction plant near Wenatchee, Wash., and that initial service would be required July 1, 1952.

In order to meet this date, it is necessary that electrical equipment, such as transformers, be ordered immediately, and all equipment must be on order before July 1, 1951. Engineering, design, must be well under way, and initial surveys must be completed by that date.

To serve the plant, the Bonneville Power Administration plans to construct a 150,000-kilovolt-ampere substation at the site of the plant to be known as the Valhalla substation.

It will also be necessary to increase the transformer capacity at the Administration's Columbia substation and to construct two 115,000-volt lines from Columbia substation to the proposed Valhalla substation.

The Chelan County PUD, which will provide the initial commitment of firm power from expansion of the powerhouse at Rock Island Dam, will also construct two 115,000-volt lines from the Rock Island plant to the Administration's proposed Valhalla substation.

Firm power in the amount of 120,000 kilowatts will be furnished by the Chelan County PUD, which will be supplemented by 50,000 kilowatts of interruptible power to be furnished by the Bonneville Power Administration, making up the total power requirement of the aluminum plant of 170,000 kilowatts.

Senator HAYDEN. What does "interruptible" mean?

Mr. RAVER. Power that we may interrupt at any time.

Senator HAYDEN. Who does the interrupting?

Mr. RAVER. We do not guarantee to maintain the delivery of it continuously.

By 1957 the entire power requirement of the plant will be furnished by the Bonneville Power Administration.

This is a preliminary description of what this money is needed for.

Senator HAYDEN. These materials you will have to obtain priority to order?

NEED FOR PRIORITY RATING

Mr. RAVER. We will have to order the equipment immediately and we will probably need the support of the Defense Electric Power Administration with the manufacturers on scheduling.

We do not have any priorities as we did in the last war. We can get DO orders and the indications from the Defense Electric Power Administration that this is urgent might mean that the manufacturers will go along.

Thus far no controlled priority system is in effect.

Senator HAYDEN. Is the same kind of equipment being manufactured for other people in the United States that will be delayed by the making of what you want?

Mr. RAVER. That is possible. This is standard equipment in the electrical field.

Senator ELLENDER. When did the Aluminum Co. decide to build the plant there that will make this necessary?

Mr. RAVER. April 26.

Senator ELLENDER. Is that the same plant that was supposed to go into New Orleans?

Mr. RAVER. Yes, sir.

Senator ELLENDER. What part did you play in getting it there, or your Administration?

Mr. RAVER. We told them what we could do.

Senator ELLENDER. You have to come to the Government for more money to be able to do that. We were under the impression that no more money would be spent for that purpose. So here you come with extended hands and ask for $3,500,000; is that right?

Mr. RAVER. That is right.

Senator ELLENDER. What other facilities will you serve in this community, other than the Aluminum Co. of America?

Mr. RAVER. We now serve the Chelan County area.

Senator ELLENDER. What will you do with what you are trying to build now?

Mr. RAVER. We will take care of a certain amount of growth in that area.

Senator ELLENDER. Have you ample power at Bonneville to do this?

Mr. RAVER. No, sir.

Senator ELLENDER. What will you have to do in order to increase it, build more dams?

Mr. RAVER. We have a program of dams under construction.

REASON FOR ESTABLISHING PROJECT IN NORTHWEST

Senator ELLENDER. That is the way you come to Washington for more money. You continue to expand.

Will you go into detail and tell us some of the circumstances or what part you played in having the Aluminum Co. of America establish itself in the Northwest?

Mr. RAVER. May I ask Mr. Marlett, who was the acting Administrator of the Defense Electric Power Administration at the time this project was initiated, to begin that story?

Senator ELLENDER. Yes.

Mr. RAVER. He was the official in charge at the time the matter was initiated.

Mr. MARLETT. In December the Secretary of the Interior certified an expansion of aluminum production facilities of 446,000 tons. That tonnage was allocated among five companies: 120,000 tons to the Aluminum Co. of America; 100,000 tons to the Reynolds Metals Co.;

100,000 tons to the Kaiser Aluminum people; 54,000 tons to the Apex Aluminum people; and 72,000 tons to the Harvey Machinery Co.

Four hundred and forty-six thousand tons of new aluminum capacity requires the equivalent of almost double that in kilowatts of power, approximately 900,000 kilowatts of power.

All of the companies were seeking sources of power supply where they could provide for expansion of their plants on an economical basis.

Senator CORDON. How much power was required?

Mr. MARLETT. Approximately 900,000 kilowatts to handle 446,000 tons expansion.

That expansion is about 60 percent of the total aluminum industry capacity today, so there was a very heavy expansion program.

The Defense Electric Power Administration investigated all sources of power supply. We were looking for hydroelectric power resources which would make available this power at the lowest possible cost so we could have an aluminum industry expansion based on low-cost power.

Senator ELLENDER. Who did that?

Mr. MARLETT. The Defense Electric Power Administration, of which I was Acting Administrator at the time for Interior. We investigated the possibilities of utilizing gas, in Louisiana and Texas, particularly.

Senator HAYDEN. Let me get clear the status of the Defense Electric Power Administration. That work was performed during the war by an independent agency?

Mr. MARLETT. By the War Production Board.

Senator HAYDEN. That function, along with several other functions, was assigned to the Secretary of the Interior and an administrative set-up in his Department was made for it, something new and not the ordinary operations of the Department?

Mr. MARLETT. That is correct. Investigation was made of the possibility of additional power production in Texas and Louisiana based on gas, and on additional power production based upon the coal fields, particularly in the Ohio Valley and West Virginia areas.

As a result of those investigations of the companies' expansion plans, in early December individual certifications were made on this plant expansion. The Aluminum Co. of America was certified for 35,000-ton expansion at its Point Comfort plant in Texas.

The Kaiser Aluminum Co. was certified for a 100,000-ton expansion in New Orleans, La.; and the Reynolds Co. was certified for 100,000-ton expansion at Corpus Christi, Tex.

The Apex Co. was given a tentative certification for 54,000-ton expansion at Corpus Christi, Tex.

The Harvey Machinery Co. was given a certification for a 72,000-ton expansion in Montana, based on Hungry Horse Dam power. That left 85,000 tons expansion of the Aluminum Co. of America's allotment of 120,000 tons which was not definitely located as of the early part of December.

At that time the Aluminum Co. of America came to me and indicated that they were interested in the possibility of hydro power at the Rock Island Dam.

Senator ELLENDER. Did they come to you, or did you solicit them?

Mr. MARLETT. They came to us. We did indicate what possible sources of power supply there were throughout the country, but they came to us and indicated they were interested in the possibility of obtaining power from the Rock Island project on the Columbia River owned by the Puget Sound Power & Light Co.

That dam has been in operation for a number of years and efforts were made during the 1940's, during World War II and even during the postwar period, to bring about expansion of that plant, but the company was unable to finance it and the expansion was never accomplished, even though the Federal Power Commission investigated and initiated inquiries trying to bring about that expansion.

Senator HAYDEN. This is a private utility?

Mr. MARLETT. Yes; a private utility company.

Therefore, it appeared that special measures would have to be taken to bring about the completion of the Rock Island plant if the power were to be made available for defense production. That plant now has four generators producing 80,000 kilowatts of power. It has space available for six more generators.

Senator ELLENDER. You mean behind the dam they now have?

Mr. MARLETT. Yes; behind the dam they now have. They have space for six more generators.

Senator ELLENDER. Will you have to build more dams to put those in?

Mr. MARLETT. No, sir; the space is there now. There are empty holes in the dam.

Senator CORDON. What was the rate of capacity of those generators?

Mr. MARLETT. The present four units are rated at 20,000 kilowatts each, producing 80,000 kilowatts. The new units with some raising of the dam—they will raise the dam about 20 feet—will produce 27,500 kilowatts each, or a total of 165,000 kilowatts of expansion.

The amount of prime power will be 120,000 kilowatts.

The Aluminum Co. of America was familiar with that project because they investigated it in the early 1940's, but were unable to work out the expansion of the project and the purchase of the power.

Senator ELLENDER. Do you know why?

Mr. MARLETT. No; I do not, Senator.

Senator ELLENDER. Who is going to finance this?

Senator CORDON. You are familiar with the facts with reference to Rock Island Dam?

Mr. MARLETT. Yes, sir.

Senator CORDON. That is what the Senator is asking about.

Mr. MARLETT. I was not familiar with the reasons why the Aluminum Co. of America was not able to work out plans in the 1940's for purchase of power. With regard to the expansion, the Secretary of the Interior and the General Services Administrator, Mr. Jess Larson, and the Federal Power Commission Chairman, Mr. Mon Wallgren—he was interested because the Rock Island project was a licensed project under the Federal Power Commission Act—they agreed that the plant should be expanded for defense production.

Senator CORDON. Who were the parties to that agreement?

Mr. MARLETT. The Secretary of the Interior, Mr. Jess Larson of the General Services Administration, and Mr. Mon Wallgren, Chairman of the Federal Power Commission.

Senator CORDON. Why would Mr. Larson be interested?

Mr. MARLETT. He entered into the contracts with the aluminum companies for the purchase of the additional aluminum from the expanded capacity.

Senator ELLENDER. Did Mr. Wallgren have a hand in getting that done?

Mr. MARLETT. Yes. The project is a licensed project under the Federal Power Commission Act, and it would require an amendment to the project license to bring about the expansion of that plant.

The Federal Power Commission could order the expansion, but there was agreement that this expansion at the Rock Island project——

Senator CORDON. I cannot quite follow all that you say. You said something about the Federal Power Commission ordering it. Did you say it could order it, or it did order?

Mr. MARLETT. It could order. It did not actually order.

There was an agreement that this expansion at Rock Island could provide the quickest and the lowest cost expanded power capacity in the country today, and that the expansion should be brought about.

Senator ELLENDER. Lowest to whom?

Mr. MARLETT. Lowest cost of expansion. I am not talking of price of power, but the lowest cost facility in terms of power output and the cost of obtaining it.

Senator ELLENDER. The lowest cost to whom, the owners?

Mr. MARLETT. To the owners or to whomever undertook the expansion.

FINANCING OF PROJECT

Senator ELLENDER. Are you in a position to tell us who is going to finance this?

Mr. MARLETT. Yes, sir. It was agreed that the Puget Sound Power & Light Co. should be given an opportunity to come in with a voluntary plan for expansion of that plant.

The Puget Sound Power & Light Co. reported that the Chelan County public utility district, which is the district in which the Rock Island plant is located, has a condemnation suit on the project, and that any expansion plan would involved the joint cooperation of the Puget company and the Chelan County public utility district.

Senator CORDON. You say that the Chelan County public utility district was condemning the dam?

Mr. MARLETT. Yes, sir.

The public utility district had a condemnation suit on the dam to take it over as a source of power supply for their system.

Senator CORDON. That was a pending suit at that time?

Mr. MARLETT. It was pending at that time in the courts. Therefore, the Puget company reported that any plan for expansion would involve a joint arrangement between the company and the public utility district in order to bring about the expansion.

As a result of our request that a joint plan be worked out, on December 19 the Puget company and the Chelan public utility district entered into an agreement whereby the Puget company leased the empty spaces in the project where the new generators would be located, to the Chelan public utility district.

The plan of the Chelan County public utility district was then to finance the expansion of the project under that lease agreement.

Senator ELLENDER. That is a public body?

Mr. MARLETT. Yes, sir. That is a county public utility district.

That preliminary agreement of December 19 was subsequently followed by a firmer agreement involving more specific terms of the lease agreement, but pursuant to that preliminary agreement the Chelan County public utility district submitted a proposal to the Aluminum Co. of America for sale of the prime power output of these six new generators which the public utility district, under the lease agreement, was in a position to install.

That proposal for 120,000 kilowatts of prime power amounted to approximately two-thirds of the requirements for this 85,000-ton plant. The remaining one-third requirement the Chelan public utility district requested the Bonneville Administration to make available on an interruptible power basis during the initial operating period of the plant.

Dr. Raver, as Bonneville administrator, agreed to make available the 50,000 kilowatts of interruptible power in addition to the 120,000 kilowatts the public utility district had available.

Senator ELLENDER. He is going to have to do something else to get it.

Mr. RAVER. No; that is not exactly the situation if I said that. We have interruptible power. We do not have firm power, so that the firm power in this picture had to come from a new source of supply.

That is where this public utility district comes into the picture, putting in a new source of supply which is being financed by private capital.

Senator ELLENDER. Are we to understand that the proposed expansion that Mr. Marlett is talking about at the moment would not furnish on its own sufficient electricity in order to make it available for the Aluminum Co. of America, but that unless you come in and spend this $3,672,000?

Mr. MARLETT. That is what it takes to make a complete deal.

Senator ELLENDER. Do you know where the money comes from in order to construct this expansion?

Mr. RAVER. Yes, sir.

Mr. MARLETT. Pursuant to a contract signed by the Aluminum Co. of America with the Chelan public utility district on April 26, the public utility district has sold revenue bonds through an investment banking syndicate to raise the money.

Senator CORDON. Was that handled by the fabulous Guy Meyers?

Mr. MARLETT. I think Guy Meyers was one of the agents. The actual syndicate was headed by Halsey, Stuart Co. of Chicago.

Senator CORDON. I asked if it was handled by him. I did not ask if he was part of the syndicate.

Mr. MARLETT. He was a fiscal agent.

Senator CORDON. He got 1 percent of the full amount of bonds for his fee?

Mr. MARLETT. I have no idea what his fee was.

Senator CORDON. You are sure you have not?

Mr. MARLETT. That is right.

Senator ELLENDER. Will you tell us what prompted you to turn down the New Orleans facility?

DETERMINATION OF NORTHWEST LOCATION FOR PROJECT

Mr. MARLETT. To my knowledge, Senator, neither the Department of Interior, nor the Secretary, nor the Defense Electric Power Administration turned down the proposal. The actual decision on the location of the plant was made by the Aluminum Co. of America as between this northwest location and the New Orleans location.

The Secretary made it clear that if the company decided, after investigating the New Orleans proposal, to locate there, he would certify the plant for that location.

The company, after investigating both the New Orleans proposal and the Northwest proposal, chose the Northwest.

Senator ELLENDER. Do you know why it was turned down by the Aluminum Co.?

Mr. MARLETT. No, sir.

Senator ELLENDER. Was it because of getting cheaper power in the nortwest area?

Mr. MARLETT. I would not say that was the sole decision. I think part of it was due to a timing factor, the question whether the company could get it quick enough in New Orleans. Part of it was due to uncertainty as to what their costs would be. At least I was told this verbally by one of the company people.

It was the fact that more time would be required to develop this New Orleans proposal as well as the specific cost factors.

TOTAL PROJECT COST

Senator ELLENDER. How much more money are you going to have to spend than this $3,672,000 in order to make this power available?

Mr. RAVER. This is the total cost of the additional facilities for service purposes.

Senator ELLENDER. That is just power?

Mr. RAVER. Yes; a substation.

Senator ELLENDER. Are you going by this process to curtail the other customers in that area? You are sure of power, I understand.

You come in every year and say that it is necessary to expand and build because of the shortage of power. I am wondering if you can at present take care of all the customers you now have in that area and then take this one on.

Mr. RAVER. We have a couple of hundred thousand kilowatts of this kind of power if we can find a customer to whom to sell it. This power is not easy to sell.

We do not know whether we will have it year-round, 6 months, 9 months, or 12 months.

POWER RATE

Senator ELLENDER. At what rate did you sell it?

Mr. RAVER. The same rate we get for our firm power.

Senator ELLENDER. What is that?

Mr. RAVER. $17.50 per kilowatt-year.

Senator ELLENDER. What does that mean in kilowatt-hours?

Mr. RAVER. That is about 2 mills per kilowatt-hour.

Senator ELLENDER. I do not suppose we can compete with that.

Senator CORDON. I would like to go into the matter somewhat, and I would like to say, Mr. Chairman, this inquiry and the balance of the inquiries are directed now to the Bonneville Power Administration, but I may as well direct it to every agency coming before any committee that I sit on during this period—that it is not going to be business as usual as far as my view, and I believe the chairman's view, is concerned.

These matters have got to be defended on the ground of defense necessity. That does to all of this justification here as well as to the others who come in.

So if I go into this thing rather carefully, that is the reason it may take a little more time than either you or I would like to spend on it. I know that you have a number of other things to do, Mr. Chairman.

The necessity of this aluminum is perfectly apparent. There is no question about that.

The only question is the necessity of this amount of money to get the aluminum. That is what I want to inquire into.

Mr. Marlett, I understood in your statement and answer to one of the questions of Senator Ellender you said that neither the Interior Department nor the Administrator nor the Defense Electric Power Administration designated this particular production facility for the Pacific Northwest; that was the decision of the Aluminum Co. of America; is that correct?

Mr. MARLETT. That is correct.

Senator CORDON. That the early availability of power and the lessened cost of the power in the Pacific Northwest were two of the moving reasons for the decision by the company?

Mr. MARLETT. That is my understanding.

OTHER PREFERRED PROJECT SITES

Senator CORDON. What is the fact as to whether or not the company did or did not prefer the location of its plant in Wenatchee, Wash.?

Mr. MARLETT. Within the Pacific Northwest, Senator, the company did prefer I believe locations other than Wenatchee.

Senator CORDON. Such as what and why?

Mr. MARLETT. Such as Grand Clouee Dam, McNary Dam, or The Dalles Dam.

Senator CORDON. Why did they prefer those other locations to the one that was finally selected? What were their reasons for it? You know. You have discussed it with them. Let us have the facts, please.

Mr. MARLETT. I would judge the principal reason would be they would obtain an at-site power rate which would be less than the transmitted power rate or the rate charged by Chelan County public utility district.

Senator CORDON. If they did that, that would simply enure to them as an additional profit on their sale of aluminum?

Mr. MARLETT. That is correct.

Senator CORDON. If they located their plant near one of the power outputs or generating plants, that would also inure to the benefit of the United States, would it not, in the matter of bringing the power to them?

Mr. MARLETT. In terms of ultimate supply, ultimate firm power supply, when the United States Government takes over the load about 1955, I believe that would be true.

Senator CORDON. You know it would, don't you?

Mr. MARLETT. Yes.

Senator CORDON. It would have to be true.

In one instance you would transmit the power at most a few miles from its source of generation.

In the other, it has to be carried—how many miles? How long are your lines that you have got to put in now?

Mr. MARLETT. This particular facility is only about 6 miles from the Columbia substation.

Senator CORDON. How far is the facility from any power output or generating place?

Mr. MARLETT. It would be about seventy miles farther to Grand Coulee.

Mr. RAVER. The power still comes from Rock Island power dam.

Mr. MARLETT. The principal power supply is still coming from the expanded facility of Rock Island Dam and the plant will be located adjacent to that.

Senator CORDON. How far from it?

Mr. MARLETT. Within 2 miles.

Senator CORDON. Your view is, then, that so far as the Government is concerned, it is just as economical to have a plant at Wenatchee as elsewhere?

Mr. MARLETT. I believe the differential between the at-site rate and the transmitted power rate will largely compensate for the difference.

Senator CORDON. What will compensate?

Mr. MARLETT. The company will have to pay $3 more ultimately per kilowatt-year under Bonneville's present rate structure for the transmitted power than it would pay for the at-site power.

Senator CORDON. The point is that the Government must invest its dollars now at a period when it does not have them.

Mr. MARLETT. That is true, the investment must be made now.

Senator CORDON. Why, if the company preferred some other location, did it decide to locate at Wenatchee?

Mr. MARLETT. That decision was controlled by the Chelan County public utility district which is putting in the additional generators at Rock Island Dam at approximately a cost of over $30,000,000, and the Chelan County public utility district just refused to make available the commitment of that power for a plant to be located other than at its own dam site.

The Federal Government at this time did not have the prime power available to make that commitment, although 5 years from now the plan will be that the Government would gradually pick up the commitment.

PRESIDENTIAL POWER TO REQUISITION PROPERTY FOR DEFENSE PROGRAM

Senator CORDON. Does not section 201, title II, of the Defense Production Act of 1950, give the President authority—

to requisition such property or the use thereof for the defense of the United States upon a payment of just compensation for such property?

In other words, a right of requisition by condemnation of any utility of any kind or character it needs in the defense effort?

Mr. MARLETT. Yes, sir.

I believe there is a provision in that section that that right of requisition should be exercised only as a matter of last resort. When a voluntary plan for expansion of the facilities was filed, it did not appear that the Government should resort to that right of requisition.

Senator CORDON. Did not appear to whom?

Mr. MARLETT. To the Defense Electric Power Administration, or to the other defense officials.

COST OF PLANT EXPANSION

Senator HAYDEN. If the property had been requisitioned, would it have been necessary to pay $30,000,000 to somebody?

Mr. MARLETT. Yes; if it had been requisitioned, and the Government then would have had to finance the expansion of the plant which will cost in the neighborhood of $30,000,000.

Senator HAYDEN. I am trying to get at the difference between the amount of money required to be paid out at this moment.

Mr. MARLETT. Under the voluntary plan the public utility district is financing the plant expansion of $30,000,000 by selling revenue bonds.

Senator CORDON. It would be altogether feasible as well as advisable, would it not, to have had the extra power to be generated at Rock Island and made a part of the great system, the Bonneville pool system, in which case it might have been taken out of any place?

Mr. MARLETT. As a matter of fact, of physical engineering feasibility, yes.

Senator CORDON. Do you limit your answer to that?

Mr. MARLETT. Yes, I do.

Senator CORDON. You know better, do you not? You know better as an engineer? You are an engineer, are you not?

Mr. MARLETT. No, sir; I am not.

Senator CORDON. You are pretty well equipped as an engineer in the electrical field by ear, are you not?

Mr. MARLETT. Yes; I have worked with engineers for some time.

EFFECT OF INTEGRATION OF ROCK ISLAND PLANT INTO BONNEVILLE SYSTEM

Senator CORDON. You know, then, that from the standpoint of availability of power the integration of the Rock Island plant as it will be when completed into the Bonneville system will, in itself, create additional power?

Mr. MARLETT. Yes; by integration with the Bonneville system, which will provide back-up during high-water periods.

When the Rock Island plant loses capacity, there will be an improvement in total firm power through integration with the Federal system.

Senator CORDON. How much?

Mr. MARLETT. I would have to check the exact figures, but I would say 40,000 or 50,000 kilowatts during the high-water period.

Mr. RAVER. That would take place in any event, regardless of whether you have the Aluminum Co. there, or not. You get those benefits anyway.

Senator CORDON. How?

Mr. RAVER. Because this plant is integrated into the system.

Senator CORDON. This plant will build its own lines from Rock Island to this particular utility, will it not, to serve that utility only?

Mr. RAVER. Yes. That will not make any difference. It will still be integrated into the Bonneville system just the way you stated, assuming you are going to have an aluminum plant some place on your system.

Senator CORDON. How much is it integrated if the power goes directly from this plant to Alcoa and not into the system?

Mr. RAVER. This plant is also tied in our system.

Senator CORDON. Where?

Mr. MARLETT. It will be tied in through this same substation the Valhalla substation.

Senator CORDON. Who gets the credit for the additional power, if developed?

Mr. RAVER. Any power that comes into our system as a result of the integration, we will get the benefit of it.

Senator CORDON. Who gets the benefit of it?

Mr. RAVER. We do.

Senator CORDON. What do you mean by "we"?

Mr. RAVER. The Bonneville Power Administration.

Senator CORDON. In other words, the development of additional power that would not exist, except for the integration, inures solely to the benefit of the Bonneville Power Administration?

Mr. RAVER. No.

Senator CORDON. That is what I am asking.

Mr. RAVER. The public utility district will also benefit.

Senator CORDON. That is a different answer than your first one. That is what I asked, who benefits from it?

To what extent does Bonneville benefit, and to what extent does the public utility district benefit?

Mr. MARLETT. During the high-water periods Bonneville will be paid for firming up power at its standard rates.

Senator CORDON. Let us just answer the question first, and then we will go into the matter of why.

To what extent does the public utility district benefit, and to what extent does Bonneville benefit? Do you know as a mathematical proposition?

Mr. RAVER. I will have to get that for you.

Senator CORDON. Do you have a formula by which you determine it?

Mr. RAVER. No.

Senator CORDON. Is there a formula that somebody has? I would like to get answers to my questions.

Mr. RAVER. There is no formula that I know anything about. There may be one, but I do not know it.

Senator CORDON. What is your answer?

Mr. MARLETT. I was going to say that during the high water period the amount of firming up power averages about 40,000 kilowatts for 2 months, and 20,000 kilowatts for 2 months, or approximately 120,000 kilowatt-months, the amount in any particular year depending upon water conditions.

The public utility district would have that much more firm rating of its plant during that high water period.

Bonneville is paid for this firming up power at its standard rates. That is the way the high water period power is handled.

The additional power during the low-water period resulting from up-stream regulation, as Dr. Raver has indicated—there is no formula set because the Federal Power Commission has the responsibility for determining that. The amount of that regulation benefit and the payment for it as determined by the Federal Power Commission will be paid by the public utility district or the Aluminum Co. when that is determined.

Senator CORDON. As a result, then, of cooperation, between Bonneville, the Chelan PUD, and with the power that resided in the Defense Electric Administration to condemn, if it needed to condemn to get added power, was there not at least a few added values in trading stock, or moral suasion, in the hands of the Bonneville Power Company and the Defense Electric Power Administration in connection with the dealings with the PUD that might have been used to get a contract to place the plant where it should have been placed, wherever that might be?

Mr. RAVER. Yes.

Senator CORDON. Were they used?

Mr. RAVER. No.

Senator CORDON. Were you interested?

Mr. RAVER. I would not say we were not interested.

Are you suggesting that I should have told the PUD, "You have got to put this power in our pool because we want this plant to go over here instead of in your community?"

Senator CORDON. I am suggesting if you wanted to go there because that is where it should have gone.

Mr. RAVER. I did not take any such action as that. Whether I should have or not I think is debateable.

Senator CORDON. I think your duty to the United States Government is to spend just as little as you have to.

Mr. RAVER. I do not know how I would have secured a power commitment under those conditions.

Senator CORDON. What do you mean?

Mr. RAVER. Between the Chelan County PUD and the Aluminum Co. of America.

Senator CORDON. What was that?

Mr. RAVER. The power commitment here is between the Chelan County PUD and the company.

Senator CORDON. Had the pool power to be developed by the Chelan PUD become part of the total available power, then the plant could have been located wherever it should have been located wherever it was most feasible and the most economical. It would have better suited the company. I understand from your answers, and would have been better for the United States Government; is that right?

Mr. RAVER. I would have had to have some sort of a commitment from the Chelan County PUD.

Senator CORDON. That is exactly what I was discussing a moment ago. When you had the chips in your hand to play the game, you did not.

Mr. RAVER. They did not have to build.

Senator CORDON. That is true; but there they were condemning it and it was to their interest to get cooperation from the Bonneville

Power Administration. They were faced with the overriding right of the United States Government itself to take it, if it was necessary.

So there was considerable basis for inducing a sound decision rather than the one made.

Mr. RAVER. I think this was a sound decision that was made, both from the point of view of the United States Government and from the point of view of the location of the plant at Wenatchee.

Senator CORDON. You do?

Mr. RAVER. Yes, sir.

Senator CORDON. You do not agree, then, it would be preferable to place the plant at a point where there would be much less expense for transmission?

Mr. RAVER. The difference in transmission cost is not the sole determining element.

Senator CORDON. It is not a question of transmission cost; it is a question of putting in the capital investment to get the transmission.

Mr. RAVER. You would have to put it in in any place.

Senator CORDON. One place you put it in for a mile or two and the other you carry it for many miles.

Mr. RAVER. It is true this plant is a long way from Grand Coulee Dam, but it is close to Rock Island Dam.

Coming back to your point on integration, the power that goes into this plant will actually come from Rock Island Dam, most of it, from here on out, regardless of who owns it.

Senator CORDON. How do you know?

Mr. RAVER. Because that is the way the system operates. That is what we mean by integration.

You take your closest source of power to your load in an integrated system. That is one of the greatest basic advantages of building an integrated system. That is what we are doing there all over that region. That is all that is involved here.

It does not mean that the power for this plant is coming from Grand Coulee Dam at all. The fact that it is 70 miles away from there is not the determining factor.

That is what I mean, sir.

Senator CORDON. That is very interesting.

How much of the power from the Rock Island Dam does the Chelan County PUD expect to use and, if they do not expect to use it, why does their obligation taper down and finally become extinguished?

We want to get into the matter in technical detail.

Mr. RAVER. That is true.

Senator CORDON. If you get this from Rock Island then you take some other power from some other place to take care of Chelan County so you carried anywhere.

Mr. RAVER. It could come from Chief Joseph Dam which is going in that same area also.

Senator CORDON. You need an outlet; you would not have to carry that much power that much farther.

Mr. RAVER. It depends on where the load that Chelan picks up comes from. It may not come from Rock Island Dam.

Senator CORDON. It will come from the closest place to Chelan.

Mr. RAVER. Their loads are growing all over that area, too. It is a very particular and important distinction, the difference between treating a dam as an isolated plant and treating it as part of an integrated system.

LITIGATION OVER EFFECT OF FUMES FROM ALUMINUM PLANTS

Senator CORDON. You are interested in the general welfare of the area, I take it, Doctor. You are aware of presently existing litigation in the Pacific Northwest arising over the adverse effect on other industries of fumes from aluminum plants?

Mr. RAVER. That is right.

Senator CORDON. This plant will be located in Wenatchee in one of the great apple centers of the Pacific Northwest.

Mr. RAVER. That is right.

Senator CORDON. With an almost certain consequent adverse effect upon the other industries in the area.

Mr. RAVER. That, sir, I would not express an opinion on.

Senator CORDON. You know it to be a fact?

Mr. RAVER. No; I do not.

Senator CORDON. Was that matter raised in any discussions with you, Mr. Marlett?

Mr. MARLETT. Yes. That question was raised and the company was told that, if they could not use the Rock Island power at Wenatchee because of the fume problem, then because of the difficulties of getting a commitment of that power by the district for use anywhere else, the company should not rely upon that source of power.

It should look for other sources of power.

On the other hand, if they could use the power at Rock Island, the company was told they would have to assume the risk of any litigation or claims arising out of alleged fume damage.

Senator CORDON. That is one of the additional reasons why the plant could have been better located at some other point?

Mr. MARLETT. I think that is one of the factors; yes, sir.

COST TO ALUMINUM CO. OF AMERICA FOR POWER

Senator YOUNG. What cost did the Aluminum Co. of America have to pay for this power?

Mr. RAVER. They are paying $20 a kilowatt-year to the Chelan County PUD, plus a transfer charge to us over the lines that we are proposing to build here of $1.36 per kilowatt-year, plus whatever the Federal Power Commission determines are the upstream benefits from storage reservoirs that would accrue to this power supply in this Chelan County PUD dam, an amount which thus far has not been determined.

That makes a total of $21.36 per kilowatt-year they pay for the firm power, plus the upstream benefit payment. They pay $17.50 per kilowatt-year to us for the 50,000 kilowatts interruptible power.

Senator YOUNG. What is that in mills?

Mr. RAVER. That would be $17.50 per kilowatt-year divided by 8,760 hours in a year. That is about 2 mills per kilowatt-hour.

Senator CORDON. I thought you said a moment ago it was $20?

Mr. RAVER. The other figure of $21.36 would be about 2½ mills per kilowatt-hour figure on the same basis.

Senator YOUNG. How much will the Government have to invest?

Mr. RAVER. Our investment is $3,672,000 for the additional facilities necessary to put this plant into operation.

Senator YOUNG. There was some interest in regard to North Dakota. A private company proposed to furnish the current. The

company would pay their own costs in building the generation facilities for this same plant. The average rate proposed would be approximately 2.6 mills per kilowatt-hour, but this would be gradually reduced so that beginning on the twenty-sixth year the rate would be 2 mills per kilowatt-hour.

BREAKDOWN OF PROJECT COST

Senator YOUNG. This would be done by private industry.

Senator CORDON. Where is your breakdown with respect to the $3,672,000?

Mr. RAVER. The total cost is broken down as follows:

The Valhalla substation, $2,336,000;

The Columbia substation, which is the substation already in existence just below Rock Island Dam, one of the main substations and switching stations on our 230-kilovolt grid system—we will have to add some investment in there to the extent of $1,081,000.

Senator CORDON. How much did the Columbia cost in the first place?

Mr. RAVER. I can get that figure.

Senator CORDON. Approximately. I just want to see what percentage of original cost we are adding.

Mr. RAVER. I would guess it is at least $2,500,000 investment there now and maybe more than that.

Senator CORDON. That is $3,417,000. What is the balance?

Mr. RAVER. The third item is the construction of two 115,000-volt transmission lines connecting these two substations. That will cost $255,000.

Senator CORDON. Does the Chelan PUD construct its own lines?

Mr. RAVER. Yes, sir.

Senator CORDON. To carry its own power?

Mr. RAVER. Yes, sir. They are constructing two 115,000-volt lines from the Rock Island Dam over to this same Valhalla substation.

Senator CORDON. Then the Valhalla substation will operate to take care of the interruptible power sold by Bonneville and take care of Chelan's prime power?

Mr. RAVER. That is right.

Senator CORDON. They have no investment in the substation?

Mr. RAVER. No, sir.

Senator CORDON. Did they pay for that?

Mr. RAVER. That is the $1.36 per kilowatt-year additional charge that is on the Aluminum Co. of America's rate of $20 per kilowatt.

Senator CORDON. Will that substation later on be operated in connection with the use of Rock Island power in the over-all Bonneville grid system?

Mr. RAVER. Yes, sir. When we take over this load in 1957, then it becomes our customer and will be treated as our customer the same as the policy with respect to all other substations in our system.

CONTRACT WITH ALCOA ON POWER USE

Senator CORDON. Do you have a firm contract with Alcoa with respect to not only the interruptible power but later on the full necessities?

Mr. RAVER. Yes, sir.

We have entered into a 20-year contract that indicates year by year what our responsibilities are and the time we pick this additional firm power responsibility up.

Senator YOUNG. May that contract be placed in the record?

Senator HAYDEN. Do you have the contract?

Mr. RAVER. Yes, sir.

(The contract referred to, subsequently furnished, is as follows:)

Contract No. Ibp–8145
5–1–51

PROPOSED POWER SALES CONTRACT EXECUTED BY THE UNITED STATES OF AMERICA DEPARTMENT OF THE INTERIOR ACTING BY AND THROUGH THE BONNEVILLE POWER ADMINISTRATOR, AND ALUMINUM COMPANY OF AMERICA, PROVIDING FOR ELECTRIC SERVICE AT WENATCHEE, WASHINGTON

INDEX TO SECTIONS

Section		Section	
1.	Term of Contract.	10.	Character of Service.
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5.	Additional Curtailment.	14.	Power Factor.
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9.	Point of Delivery.	18.	Approval of Contract.

This POWER SALES CONTRACT, executed _____, 1951, by the UNITED STATES OF AMERICA (hereinafter called "the Government"), Department of the Interior, acting by and through the BONNEVILLE POWER ADMINISTRATOR (hereinafter called the Administrator), and the ALUMINUM COMPANY OF AMERICA (hereinafter called the Purchaser), a corporation organized and existing under the laws of the Commonwealth of Pennsylvania—

WITNESSETH:

WHEREAS the Administrator is authorized to dispose of electric energy generated at various Federal dams in the Northwest in accordance with the Bonneville Project Act, approved August 20, 1937, as amended, pursuant to Executive Order No. 8526, dated August 26, 1940, and the following orders of the Secretary of the Interior: No. 1994 (dated September 26, 1944), No. 2115 (dated October 16, 1945), No. 2237 (dated August 9, 1946), and No. 2563 (dated May 2, 1950); and

WHEREAS the Purchaser expects to construct, on a site in the immediate vicinity of Wenatchee, Washington, a plant (hereinafter called "the Purchaser's plant") to be used in the production of aluminum; and

WHEREAS the Purchaser desires to purchase from the Government firm power in the amount of 170,000 kilowatts for use in the Purchaser's plant; and

WHEREAS the Government will not have a supply of firm power available for delivery to the Purchaser until after the time of initial delivery hereunder; and

WHEREAS the Puget Sound Power & Light Company (hereinafter called "Puget") is the owner of a hydroelectric project known as the Rock Island Project located on the Columbia River in the vicinity of Wenatchee, Washington, which is constructed so as to produce 80,000 kilowatts of firm power during the storage control season commencing on October 1 of each year and ending on April 30 of the following year; and

WHEREAS said Project is constructed in such manner as will permit the installation of six additional generators and related facilities (hereinafter called "the Addition") which, if so installed, would ordinarily produce approximately an additional 120,000 kilowatts of power, but such amount would be reduced at times of high streamflows on the Columbia River; and

WHEREAS Public Utility District No. 1 of Chelan County, Washington (hereinafter called "the District") on April 26, 1951, entered into a Lease Agreement with Puget which vests in the District the right to construct, install, maintain, and operate the Addition subject to the conditions therein stated; and

WHEREAS the District has entered into a power contract with the Purchaser dated April 26, 1951, which provides, among other things, for the construction of the Addition by the District, and for the sale of power to the Purchaser in various amounts during various periods; and

WHEREAS the Administrator expects that the Government will be able to supply firm and interruptible power, as herein provided, in amounts sufficient to supply the excess of the Purchaser's requirements over the portion thereof which is supplied by the District;

NOW, THEREFORE, the parties hereto, subject to all the provisions of said Bonneville Project Act, as amended, and said Executive Order No. 8526, mutually covenant and agree as follows:

1. *Term of Contract.*—Subject to the other provisions contained herein, each of the provisions of this contract shall be effective for the term of twenty (20) years commencing at 12 p. m. on the date on which it is executed.

2. *Definitions.*—As used herein:

(a) The term "the net normal capability of the Addition", during each half-hour in the term hereof, shall be deemed to be the number of kilowatts, not exceeding 120,000 computed by: multiplying by 25,000 the number of additional generators which have been installed by the District at Rock Island Project and placed in regular operation prior to such half-hour; and multiplying the product so obtained by a factor or factors to be agreed upon by representatives designated by the parties hereto to adjust for losses from the generator bus at said Addition to the 13.2 kv bus in the Government's Valhalla substation;

(b) The term "the District's normal supply":

(1) During each half-hour in the term hereof prior to 12 p. m. on June 30, 1955, shall be deemed to be the smaller of the following: (A) the total electric energy requirements, in kilowatts, of the Purchaser's plant during such half-hour, or (B) the net normal capability of the Addition during such half-hour;

(2) during each half-hour in the period commencing at 12 p. m. on June 30, 1955, and ending at 12 p. m. on June 30, 1956, shall be deemed to be the smaller of the following: (A) the net normal capability of the Addition during such half-hour, or (B) 60,000 kilowatts; and

(3) during each half-hour in the period commencing at 12 p. m. on June 30, 1956, and ending at 12 p. m. on June 30, 1957, shall mean the smaller of the following: (A) the net normal capability of the Addition during such half-hour, or (B) 30,000 kilowatts;

(c) The term "the net actual capability of the Addition," during each half-hour in the term hereof, shall be deemed to be the number of kilowatts computed by multiplying the integrated demand for electric energy generated by the District during such half-hour, determined as provided in subsection (b) of section 11 hereof, by a factor or factors to be agreed upon by representatives designated by the parties hereto to adjust for losses from the generator bus at said Addition to the 13.2 kv bus in the Government's Valhalla substation; *provided however*, that if any of the additional generators, which have been installed by the District at Rock Island project and placed in regular operation prior to such half-hour, are not operating during any half-hour while the net normal capability of the Addition is reduced as the result of high streamflows on the Columbia River, "the net actual capability of the Addition" during such half-hour shall be deemed to be the number of kilowatts computed by: multiplying such integrated demand by such factor; dividing the product so obtained by the number of such additional generators which were operating during such half-hour; and multiplying the quotient so obtained by the number of additional generators which have been installed by the District at Rock Island Project and placed in regular operation prior to such half-hour; and

(d) The term "firming-up power" shall mean the electric energy needed, during each half-hour prior to 12 p. m. on June 30, 1957, when the net actual capability of the Addition is reduced as the result of high stream flows on the Columbia River, to supply the deficiency between such capability and the District's normal supply

3. *Sale of Power and Amount Sold.*—(a) Subject to the other provisions contained herein, the Government shall make available to the Purchaser, and the Purchaser shall purchase from the Government, for use at the Purchaser's plant:

(1) during each half hour in the period commencing at the time when one potline in the Purchaser's plant and the Government's Columbia-Valhalla 115-kv. transmission line and Valhalla substation are constructed and ready for regular operation, and ending at 12 p. m. on June 30, 1955, interruptible power (as defined in section 15.1 of Exhibit B attached hereto) in the amount of the Purchaser's requirements, if any, of firming-up power during such half-hour, and in addition thereto, interruptible power in the amount of the excess, if any, over the District's normal supply during such half hour, of the smaller of the following: (A) the total electric energy requirements, in

kilowatts, of the Purchaser's plant during such half hour, or (B) 170,000 kilowatts;

(2) during each half-hour in the period commencing at 12 p. m. on June 30, 1955, and ending at 12 p. m. on June 30, 1956, firm power (as defined in section 1.1 of Exhibit B attached hereto) in the amount of 60,000 kilowatts (which amount shall constitute the Purchaser's contract demand as defined in section 2.1 of Exhibit B attached hereto during such period), interruptible power in the amount of the Purchaser's requirements, if any, of firming-up power during such half-hour, and in addition thereto, interruptible power in the amount of the excess of the total electric energy requirements, in kilowatts, of the Purchaser's plant during such half-hour, over the sum of 60,000 kilowatts and the District's normal supply during such half-hour; but not more than 110,000 kilowatts;

(3) during each half-hour in the period commencing at 12 p. m. on June 30, 1956, and ending at 12 p. m. on June 30, 1957, firm power in the amount of 90,000 kilowatts (which amount shall constitute the Purchaser's contract demand during such period), interruptible power in the amount of the Purchaser's requirements, if any, of firming-up power during such half-hour, and in addition thereto, interruptible power in the amount of the excess of the total electric energy requirements, in kilowatts, of the Purchaser's plant during such half-hour, over the sum of 90,000 kilowatts and the District's normal supply during such half-hour, but not more than 80,000 kilowatts; and

(4) during each half-hour in the remainder of the term hereof commencing at 12 p. m. on June 30, 1957, firm power in the amount of 120,000 kilowatts (which amount shall constitute the Purchaser's contract demand during such time), and in addition thereto interruptible power in the amount of the remainder of the total electric energy requirements, in kilowatts, of the Purchaser's plant during such half-hour, but not more than 50,000 kilowatts.

The Administrator hereby restricts delivery of firm power to the Purchaser during each period specified in subdivisions (2), (3), and (4) above, to the amount of the Purchaser's contract demand which is to be in effect during such period according to such subdivisions, and such amount shall constitute the Purchaser's restricted demand, mentioned in said section 2.1 of said Exhibit B, for each month in such period.

(b) If the Administrator determines at any time during any period specified in subdivision (1), (2), (3), or (4) of subsection (a) of this section, that the Government does not have available for delivery to the Purchaser the amount of interruptible power specified in such subdivision, or that the transmission facilities required to deliver such interruptible power are inadequate, the Government shall be obligated by said subdivision to deliver only such amount of interruptible power, if any, during such times or times in such period as may be designated by the Administrator.

(c) If the rates applicable to the sales of electric energy generated at McNary Dam and Chief Joseph Dam differ from the rates applicable hereunder, the Administrator shall be obligated to make firm power available as herein provided but only at the rates which are applicable to the sales of electric energy generated at said dams, but if such rates are higher than the rates applicable hereunder, the Purchaser may, by giving written notice to the Administrator within ninety (90) days after such rates become effective either (a) terminate this contract effective at such later time as is stated in said notice, or (b) require deliveries of interruptible power, subject to subsection (b) of this section, in lieu of such firm power during the remainder of the term hereof, at the rates applicable hereunder.

4. *Temporary Curtailment of Contract Demand and Payment Therefor.*—The Purchaser may temporarily reduce its contract demand for firm power for any period of one or more calendar months after 12 p. m. on June 30, 1955, by giving written notice to the Administrator at least thirty (30) days prior to the beginning of the first month in such period specifying the number of kilowatts of reduction in its contract demand for firm power for such period, subject to the following provisions:

(a) The Government shall not be obligated to make firm power available to the Purchaser during any month in such period in an amount in excess of such contract demand for such month as so reduced.

(b) The amount of such reduction in contract demand (1) for the month of July 1955 shall not be less than 6,000 kilowatts, and (2) for any other month in such period shall not be less than ten percent (10%) of the Purchaser's contract demand for the immediately preceding month.

(c) The reduction for any such period (expressed in kilowatt-months) shall not exceed an amount which when added to the kilowatt-months of all previous re-

ductions will be twenty-four percent (24%) of the contract kilowatt-months determined at that time as provided in subsection (e) of this section.

(d) During the periods of reduction the Purchaser shall pay: one-fourth of the charge on the difference in the billing demands mentioned in subsection (f) of this section (computed at the rate specified in Exhibit A attached hereto) up to eight percent (8%) of such contract kilowatt-months; one-half of the charge on such difference in billing demands (computed at such rate) in excess of eight percent (8%) and up to sixteen percent (16%) of such contract kilowatt-months; and three-fourths of the charge on such difference in billing demands (computed at such rate) in excess of sixteen percent (16%) and up to twenty-four percent (24%) of such contract kilowatt-months.

(e) The "contract kilowatt-months" on any date in the term hereof shall be the sum of the products computed by multiplying each contract demand stated in subsection (a) of section 3 hereof by the number of months or fractions thereof during which such contract demand was, before such date, and is to be, after such date, in effect according to the provisions of said subsection (a), and in making such computations neither the amount of such contract demand nor the period during which it was or is to be, in effect shall be reduced as the result of any reduction in contract demand made, or which could be made, under this section.

(f) The "difference in billing demands" mentioned in subsection (d) of this section, for such month shall be the remainder obtained by subtracting the billing demand for firm power for such month, determined as provided in subsection (e) of section 7 hereof, from a billing demand for firm power for such month determined (in accordance with said Exhibit A) without taking into account the Purchaser's notice of reduction in the contract demand specified herein.

(g) Subject to the provisions of this section, the Purchaser may increase its contract demand as reduced under the provisions of this section to such amount, not exceeding the amount of the contract demand authorized by subsection (a) of section 3 hereof, as is specified by the Purchaser: (1) on such date in the period from June 1 to September 30 of any year as is specified by the Purchaser, if written request for such resumption is received from the Purchaser by the Administrator at least ninety (90) days before the beginning of such period; (2) on such date in the period from October 1 of any year to May 31 of the following year as is specified by the Purchaser, if written request for such resumption is received from the Purchaser by the Administrator at least ninety (90) days before the beginning of such period. The Administrator may permit a requested increase in contract demand to become effective on a date which is earlier than that specified above if he determines that he will have adequate firm power available for that purpose.

(h) Each temporary reduction in the contract demand specified in Contract No. Ibp–8158 (providing for electric service at the Purchaser's Vancouver plant) which is made pursuant to the terms thereof, by using a temporary reduction in contract demand authorized by this section shall, for the purpose of determining the amount of curtailment permitted by subsection (c) of this section and the amount of payments required by subsection (d) of this section, be considered in the same manner as if such temporary reductions were made in the contract demand specified herein.

5. *Additional Curtailment.*—The Purchaser shall also have the right after 12 p. m. on June 30, 1955, to temporarily reduce its contract demand specified herein, by using any temporary reduction in the contract demand specified in said Contract No. Ibp–8158 to which the Purchaser is entitled under section 4 of said Contract No. Ibp–8158, if the Administrator determines that such reduction will not have the result of increasing losses, or creating undesirable voltage conditions on, or otherwise adversely affecting the operation of, the Government's system: *Provided, however,* that

(a) the total amount of temporary reductions made in the contract demands (specified in this contract and Contract No. Ibp–8158) shall not at any time exceed the total amount of reductions authorized to be made at such time by section 4 of this contract and section 4 of said Contract No. Ibp–8158; and

(b) the provisions of section 4 hereof except subsections (c) and (d) thereof shall apply to a reduction which is made pursuant to this section in the contract demand specified herein.

6. *Transmission of Power and Amount.*—(a) Subject to the other provisions contained in this section, the Government will make available to the Purchaser at the point of delivery described in section 9 hereof during each half-hour in the term hereof prior to 12 p. m. on June 30, 1957, such amounts of electric energy and reactive power (loss transmission and transformation losses) as are made available by the District to the Government during such half-hour at the 115 kv bus in the Government's Valhalla substation for that purpose; *provided, however,*

that the Government shall not be obligated by this subsection to deliver during any half-hour in such period any amount of electric energy in excess of the District's normal supply during such half-hour.

(b) The Government may, pursuant to section 15 of Exhibit C attached hereto, temporarily interrupt or reduce deliveries of electric energy and reactive power under this section, and if the operation of the facilities of the Government which are used to make deliveries under this section is suspended, interrupted, or interfered with as the result of the occurrence of any event mentioned in section 13.1 of Exhibit B attached hereto or section 15 hereof, the Government shall not be obligated to make deliveries under this section during such time and to such extent as such suspension, interruption, or interference makes it reasonably impracticable to do so.

7. *Payment for Power Sold.*—(a) Subject to the other provisions contained herein, the Purchaser shall pay the Administrator for the interruptible and firm power made available hereunder prior to 12 p. m. on December 19, 1959, at the rate specified in Bonneville Wholesale Power Rate Schedule C–4, and in accordance with the terms thereof and the General Rate Schedule Provisions (effective April 1, 1948, as amended), copies of which are attached hereto as Exhibits A and B, respectively, and are hereby made a part of this contract. Any modification of said Exhibit A or B shall be applicable hereunder prior to December 20, 1959, only as provided in section 13 or 14 of Exhibit C attached hereto. Except as it is otherwise provided in subsection (b) of this section, the charges for interruptible power delivered hereunder from time to time for any period ending within a month in accordance with a prior agreement or agreements of the parties shall be prorated pursuant to section 9.1 of Exhibit B attached hereto.

(b) The amount to be paid by the Purchaser, as provided in subsection (a) of this section, for the interruptible power delivered hereunder during each month in the term hereof to fulfill the Purchaser's requirements of firming-up power, shall be one-twelfth of $17.50 (which is the rate specified in said Exhibit A) per kilowatt of billing demand for such interruptible power for such month. The billing demand for such interruptible power for such month shall be the number of kilowatts computed by adding together the largest of the daily thirty-minute integrated demands for such interruptible power during such month, determined as provided in subsection (b) of section 12 hereof, and dividing the sum so obtained by the number of days in such month. The provisions of Exhibits A and B which would otherwise be controlling in the determination of charges for such interruptible power and which are inconsistent with the foregoing part of this subsection (b) (including Billing Demand Factor 4 of Exhibit A attached hereto) shall not apply, but sections 13 and 14 of Exhibit C attached hereto shall apply to such rate.

(c) In determining the Purchaser's billing demand for firm power made available hereunder during each month in the term hereof, the Purchaser's restricted demand, mentioned in section 3 hereof, shall be substituted, in accordance with section 2.1 of said Exhibit B, for the computed demand of the Purchaser for such month and for the highest measured or computed demand of the Purchaser during the preceding eleven months.

(d) The Purchaser shall pay the Administrator for the electric energy made available hereunder during each month in the remainder of the term hereof commencing at 12 p. m. on December 19, 1959, at the rate specified in any rate schedule available at the end of such month under new contracts for service of the class, quality, and type provided for herein, and in accordance with the terms thereof and the General Rate Schedule Provisions incorporated or referred to in such rate schedule, subject to the following provisions:

(1) if more than one rate schedule for such service is available at the end of such month, the Purchaser shall determine which of the several rate schedules shall then apply hereunder;

(2) after 12 p. m. on December 19, 1959, the Purchaser shall continue to have the right to a reduction in charges for interruptions in service as authorized by section 13.2 of Exhibit B attached hereto, and the words "uncontrollable forces," referred to in said section 13.2, shall include the events mentioned in section 13.1 of said Exhibit B and section 15 of this contract; and

(3) if a rate in excess of the rate in effect on December 19, 1959, becomes effective hereunder pursuant to this subsection (d), the Purchaser may, by giving written notice to the Administrator at any time within sixty (60) days from the time such increased rate becomes effective, terminate this contract at such time after said notice is given as is therein specified.

(e) For each month in the term hereof during which the Purchaser's contract demand has been temporarily reduced in accordance with sections 4 or 5 hereof,

the Purchaser's billing demand for firm power shall be determined in accordance with the provisions in said Exhibit A except that Billing Demand Factor (1) will be the Purchaser's contract demand for such month as so reduced and B lling Demand Factors (3) and (4), if applicable, will be reduced by the number of kilowatts by which the Purchaser's contract demand for such month was reduced.

(f) The Purchaser's measured demand for any billing period prior to 12 p. m. on June 30, 1957, shall be deemed not to exceed the Purchaser's contract demand in effect during such period. If the operation of the Purchaser's plant is interfered with due to an uncontrollable force, as defined in section 13.1 of Exhibit B attached hereto and section 15 hereof, to the extent that the Purchaser is prevented from taking delivery of electric energy during any half-hour at an integrated demand which equals or exceeds the sum of the District's normal supply and the Purchaser's contract demand for firm power in effect, during such half-hour, the amount of firm power delivered hereunder during such half-hour shall be deemed to be the number of kilowatts which bears the same ratio to the integrated demand for such half-hour (determined as provided in subsection (a) of section 11 hereof) as such contract demand bears to said sum.

8. *Payment for Transmission of Power.*—As compensation and in full payment by the Purchaser for the services of the Government and the use of its facilities in making deliveries of electric energy and reactive power to the Purchaser pursuant to section 6 hereof, the Purchaser will pay the Government for each month prior to 12 p. m. on June 30, 1957, during which such deliveries are made, an amount which is equal to the product obtained by: subtracting the Purchaser's billing demand for firming-up power during such month (determined as provided in subsection (b) of section 7 hereof) from the largest of the thirty-minute integrated demands during such month for the electric energy so transmitted, determined as provided in subsection (c) of section 12 hereof; and multiplying the remainder so obtained by $0.113; *provided, however,* that if the District's normal supply is increased during any month by the installation and placing in regular operation at the Rock Island Project by the District of one of the generators which constitute a part of the Addition, the charges payable under this section for such month shall be pro-rated.

9. *Point of Delivery.*—Electric energy will be made available as herein provided at the point in the Government's Valhalla substation, to be hereafter constructed, where the 13.2 kv facilities of the parties hereto will be connected (which point is hereby defined as "the Valhalla point of delivery").

10. *Character of Service.*—The electric energy made available hereunder shall be in the form of three-phase current alternating at a frequency of approximately sixty (60) cycles per second, and deliveries thereof at the Valhalla point of delivery will be made at approximately 13.2 kv.

11. *Measurement of Power.*—(a) The total amounts of electric energy and reactive power delivered hereunder, and of the thirty-minute integrated demands for such electric energy, at the Valhalla point of delivery, shall be the amounts thereof determined from measurements made by the Government's watt-hour, var-hour, and recording demand meters, respectively, to be installed in the Government's Valhalla substation so as to record the flow of such electric energy and reactive power in the 13.2 kv circuits over which such delivery is made.

(b) The amounts of electric energy and reactive power generated by the District, and of the thirty-minute integrated demands for such electric energy, shall be the amounts thereof determined from measurements made by the District's watt-hour, var-hour, and recording demand meters, respectively, to be installed in the District's substation at the Rock Island Project so as to record the flow of such electric energy and reactive power in the 13.8 kv circuit or circuits extending from the District's generator bus.

12. *Amount of Power Delivered.*—(a) Each thirty-minute integrated demand of the Purchaser for interruptible power (other than that delivered to fulfill the Purchaser's requirements of firming-up power) delivered hereunder:

(1) during the period prior to 12 p. m. on June 30, 1955, shall be the number of kilowatts, if any, by which the integrated demand for such half-hour, determined as provided in subsection (a) of section 11 hereof, exceeds the District's normal supply during such half-hour, determined as provided in subsection (b) of section 2 hereof;

(2) during the period commencing at 12 p. m. on June 30, 1955, and ending at 12 p. m. on June 30, 1957, shall be the number of kilowatts, if any, by which the integrated demand for such half-hour, determined as provided in said subsection (a) of section 11 hereof, exceeds the sum of the following: (A) the District's normal supply during such half-hour, determined as

provided in said subsection (b) of section 2 hereof; and (B) the Purchaser's contract demand for firm power in effect during such half-hour under section 3, 4, or 5 hereof.

(b) Each thirty-minute integrated demand of the Purchaser for interruptible power delivered hereunder to fulfill the Purchaser's requirements of firming-up power shall be the smaller of the following:

(1) the number of kilowatts, if any, by which the District's normal supply during such half-hour, determined as provided in said subsection (b) of section 2 hereof, exceeds the net actual capability of the Addition during such half-hour, determined as provided in subsection (c) of said section 2 hereof; or

(2) the number of kilowatts, if any, by which the integrated demand for such half hour, determined as provided in subsection (a) of section 11 hereof, exceeds the sum of the following: (A) the Purchaser's contract demand, if any, in effect during such half hour under section 3, 4, or 5 hereof; and (B) the net actual capability of the Addition during such half hour, determined as provided in said subsection (c) of section 2 hereof.

(c) Each thirty-minute integrated demand for the electric energy transmitted pursuant to section 6 hereof prior to 12 p. m. on June 30, 1957, shall be the number of kilowatts, if any, by which the integrated demand for such half hour, determined as provided in subsection (a) of section 11 hereof, exceeds the sum of the following: (1) the Purchaser's contract demand, if any, in effect during such half hour under section 3, 4, or 5 hereof, (2) the integrated demand of the Purchaser for interruptible power during such half hour, determined as provided in subsection (a) of this section, and (3) the integrated demand of the Purchaser for interruptible power delivered during such half hour to fulfill the Purchaser's requirements of firming-up power, determined as provided in subsection (b) of this section.

13. *General Provisions.*—The General Contract Provisions (GCP Form IND–8), attached hereto as Exhibit C, are hereby made a part of this contract; *provided, however,* that section 14 of said Exhibit C shall be applicable only until 12 p. m. on December 19, 1959.

14. *Power Factor.*—The Purchaser will design and construct its plant to take delivery of electric energy hereunder under normal conditions at an estimated monthly average power factor of approximately 0.90.

15. *Uncontrollable Forces.*—"Uncontrollable forces" mentioned in section 13.2 of Exhibit B attached hereto shall be deemed to include (in addition to the events mentioned in section 13.1 of said Exhibit B) such of the events hereinafter specified as the Purchaser, by the exercise of reasonable diligence and foresight, could not reasonably be expected to avoid:

(a) Orders and temporary or permanent injunctions which prevent operation, in whole or in part, of the Purchaser's plant, and which are issued in any bona fide proceeding by:

(1) any duly constituted court of general jurisdiction;

(2) any administrative agency or officer provided by law if (A) the Purchaser has no right to a review of the validity of such order by a court of competent jurisdiction, or (B) such order is operative and effective unless suspended, set aside, or annulled by a court of competent jurisdiction and such a court is not authorized or declines to suspend such order, or thereafter to set aside or annul such order in a proceeding prosecuted by the Purchaser in good faith; *provided, however,* that the Purchaser shall not be required to prosecute such a proceeding, in order to have the benefits of this section, if the parties agree that there is no valid basis for contesting the order; and

(b) Floods which limit or prevent the operation of, or which constitute an imminent threat of damage to, the Purchaser's plant.

The word "failure" as used in clause (b) of section 13.1 of Exhibit B attached hereto, as applied to any works, system, or other physical facilities, shall be deemed to include an interruption of or interference with the actual operation thereof.

16. *Construction of Facilities.*—(a) As soon as it is reasonably practicable the Government will construct an 115–13.2 kv. substation (herein called "the Government's Valhalla substation"), including a terminal structure therein, at a site in the vicinity of Wenatchee, Washington, adjacent to the site of the Purchaser's plant mentioned in subsection (b) of this section, and an 115 kv. transmission line extending from the Government's Columbia substation to said Valhalla substation, will connect said substations and said 115 kv. transmission line, and upon completion of the construction provided for in subsection (b) of this section,

will connect the Purchaser's 13.2 kv. circuits and the facilities of the Government in said Valhalla substation. The Government will furnish, at its expense, all labor, easements, and permits and all materials, supplies, equipment, and property, except the jumpers mentioned in said subsection (b), required for the construction and connection work to be done by the Government as provided in this subsection.

(b) As soon as it is reasonably practicable, the Purchaser will construct a plant for the production of aluminum on a site in the vicinity of Wenatchee, Washington, and such 13.2 kv circuits extending from said plant to the Government's Valhalla substation as are required to enable it to take delivery of electric energy hereunder, will attach said circuits to the terminal structure mentioned in subsection (a) of this section, and will furnish at its expense all labor, easements, and permits, and all materials, supplies, equipment, and property, including fixtures and insulators required for such construction and attachment. The Purchaser will also furnish, at its expense, the jumpers required for the connection of its circuits and the facilities of the Government in said substation.

17. *Termination of Contract.*—If the Purchaser fails to construct its plant and have one potline ready for initial operation on or before December 31, 1952, the Administrator may at any time thereafter, and before completion of said potline, terminate this contract; *provided, however,* that if the Purchaser is prevented from commencing construction of its plant or completing said potline as the result of the occurrence of any event which is reasonably beyond its control, such date will be extended for such period as the parties agree is reasonable under the then existing circumstances, but if the parties do not so agree, the length of such period will be determined by arbitration as provided in Exhibit C attached hereto.

18. *Approval of Contract.*—This contract shall not be binding on the parties hereto until it has been approved by the Secretary of the Interior and until the rates and charges herein contained are approved by the Federal Power Commission, but when so approved shall be effective at the time specified in section 1 hereof.

IN WITNESS WHEREOF, the parties hereto have executed this agreement in several counterparts.

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR

[SEAL] By ----------
Bonneville Power Administrator

ALUMINUM COMPANY OF AMERICA

[SEAL] By ----------

ATTEST:

BONNEVILLE CONTRACTS WITH PRIVATE UTILITIES

Senator CORDON. That brings up a matter which the Secretary brought up yesterday. I could not answer it because I did not have all the facts. I indicated doubt as to his statement. The doctor is here and can clarify it.

The Secretary's statement yesterday to the committee was that with respect to private distribution utilities in the Bonneville area they all had satisfactory contracts with respect to the furnishing of Bonneville power.

How long do their contracts run?

Mr. RAVER. Their contracts are year-to-year contracts.

Senator CORDON. I thought so. The Secretary said that he doubted that.

They do not have any contract for more than 1 year?

Mr. RAVER. None, except the Montana Power Co. They have a long-term contract.

Senator CORDON. That is not in the Bonneville area?

Senator HAYDEN. What is the length of that contract?

Mr. RAVER. It is a 5-year contract with a rolling extension provision that keeps it going ahead from year to year after the first 2 years of operation.

They always have 3 years ahead of them before it can be canceled.

Senator HAYDEN. What is the reason why you could not have the same provision in the contracts generally in Bonneville?

Mr. RAVER. I think we can and will if we ever get on top of the power supply situation again. We have not been able to do anything else but give them 1-year contracts since 1947 without leaving somebody short, either the public agencies or the private utilities.

There is not enough for all of them.

Senator CORDON. When you speak of private utilities, you are speaking of the customers?

Mr. RAVER. That is right.

Senator CORDON. There are three-quarters of a million people in that area.

Mr. RAVER. I am not arguing the merits of it.

Senator CORDON. I just wanted to correct your statement so it would not refer to private utilities because they simply transmit power.

Do you have any other contracts of other than those of your preferred public body customers running over year to year?

Mr. RAVER. Yes, sir. We have a number of long-term contracts with industry.

Senator CORDON. Will you please list those for the record?

(The information is as follows:)

Bonneville Power Administration long-term industrial contracts

	Contract No.	Kilowatts
Aluminum Co. of America	Ibp-837	32,500
Do	Ibp-7482	103,500
Carborundum Co., The	Ibp-5354	9,200
Chromium Mining & Smelting Co	Ibp-6085	13,000
Crown-Zellerbach Corp	Ibp-5433	6,200
Electro-Metallurgical Co	Ibp-2199	7,500
Harvey Machine Co., Inc	Ibp-7471	74,000
Keokuk Electro-Metals Corp	Ibp-7851	7,500
Pacific Carbide & Alloys Co	Ibp-1329	2,700
Pennsylvania Salt Manufacturing Co. of Washington	Ibp-6868	10,800
Permanente Metals Corp	Ibp-4759	35,000
Do	Ibp-4969	189,000
Do	Ibp-5160	50,000
Rayonier, Inc	Ibp-5808	2,300
Reynolds Metals Co	Ibp-7505	60,000
Do	Ibp-7506	141,680
Victor Chemical Works	Ibp-7569	17,000
U. S Atomic Energy Commission	Ibp-3927	(1)
U. S. Bureau of Mines	Ibp-4161	[2] 2,000
U. S. Navy (Bremerton)	Ibp-7866	3,000

[1] Restricted information.
[2] Experimental power.

TERM CONTRACT WITH CHELAN COUNTY UTILITY DISTRICT

Senator HAYDEN. What is the length of the term of your contract with the PUD?

Mr. RAVER. They are 20-year contracts. That is the length permitted under the Bonneville Act, 20 years.

Senator HAYDEN. I cannot get it through my head why a public utility district should have a 20-year contract and the private utility can only have a 1-year contract.

Mr. RAVER. We do not have any power for long-term contracts Until such time as we get more power, that is the situation.

Senator HAYDEN. Does it mean because the PUD is a preferred customer that it should have a 20-year contract, whereas the private utility, not being a preferred customer, cannot get one?

Mr. RAVER. No; that is not the distinction, Mr. Chairman. The preference and priority provisions in the Bonneville Act have acted perhaps to bring that about, but there is nothing in the Bonneville Act that prohibits the Administrator from making a 20-year contract with a private utility company, providing his preference customers are taken care of.

With the power supply situation facing us now, and that which has faced us, this is nothing new. For at least for the last 4 years I do not know that I could have made firm power contracts with private utility companies for long-term commitments without at this time being unable to carry out firm commitments to the public agencies which have a preference.

It was a question of, if you are going to have a shortage, let the preference and priority apply and, if so, to whom? So far as I can see, it applies to the public agencies.

If we have ample power supplies, the preference and priority clause in the Bonneville Act is not important.

Senator HAYDEN. How long will it be before you do have that ample power?

Mr. RAVER. 1956. We are hopeful and assuming that the schedule of installations of dams and generators will go on schedule.

If everything is on schedule, we will be out of this by 1955, but certainly 1956 when we can take care of firm power commitments of private utility companies.

We have made such a proposal to them. I do not know whether they are going to accept it or not.

Senator CORDON. You made a contract here recently with Alcoa, a firm contract, under the terms of which at specified times you assume the obligation for firm power?

Mr. RAVER. That is right.

Senator CORDON. You do not have that firm power now?

Mr. RAVER. It is based on the same kind of a schedule.

Senator CORDON. Have you made any contracts with any of the private utilities based upon the same thing?

Mr. RAVER. We have offered it to them. It is being considered at the present time.

Senator CORDON. When did you make that offer?

Mr. RAVER. I made it first to Portland General Electric Co. at least 6 months ago. They decided there it should be considered by all of the private utility companies together and they have tried to work it out together since that time.

Senator CORDON. That is beside the point here. It came up yesterday in the statement of the Secretary.

COST OF VALHALLA-COLUMBIA MIDWAY TRANSMISSION LINE

What is this transmission line that is going to cost $255,000?

Mr. RAVER. That will tie our Valhalla substation into our Columbia-Midway 230 kilovolts transmission grid. That will be a part of the integration.

Senator CORDON. Where does it run from, and to where?

Mr. RAVER. From Valhalla to our Columbia substation, about 6 miles away.

Senator CORDON. With respect to the present time, Doctor, if this plant were located at Grand Coulee near the dam, would it still necessitate a capital expenditure of $3,672,000 to complete its installation?

Mr. RAVER. No, sir.

Senator CORDON. How much would it cost?

Mr. RAVER. It would require such capital expenditure, but not by the Government. Under our at-site rate provision the customer is required to put in these facilities himself.

Senator CORDON. So if this plant had been providently located near Grand Coulee or other generating outlets, this expenditure of $3,672,000 by the Government would not have been necessary?

Mr. RAVER. That is right, but our revenues would have been less.

ANTICIPATED REVENUE

Senator CORDON. As I stated in the beginning, this is not the time to work those plans out. This is the time to try to spread our dollars where they are absolutely needed.

It would have been some time before you could have recouped $3,672,000 in additional revenues, would it not?

Mr. RAVER. No, sir. I can give an indication of the revenue situation.

Senator CORDON. Additional revenue?

Mr. RAVER. I am talking about that. If you are interested in figures, I have them.

Senator CORDON. I would be glad to have them. This has to be justified.

Mr. RAVER. For the year 1953, which is the first year of operation under which we provide only interruptible power, our total revenue will be $1,212,720.

Senator CORDON. I am not interested in the gross. If you have any figures that would indicate what would be left of it which you might apply to the reduction of the principal, I would be interested in that.

Mr. RAVER. The cost of facilities for that year, based on an average annual charge on this investment of about 9 percent, is $428,600, leaving a net income so far as this operation is concerned, of $784,120 for that year.

Senator CORDON. Taking out operating costs?

Mr. RAVER. Yes, sir.

Senator CORDON. Just furnish for the record a statement indicating the amortization of the $3,672,000 for whatever period is necessary.

Mr. RAVER. I would be glad to do that.

I would like to give you some more of these figures up to the time we take up the whole load.

I just gave you the first year when we only have 50,000 kilowatts of the load. These facilities are being installed to take care of the entire load.

Senator CORDON. Then why do you need $3,672,000 if that is all you are going to spend?

Mr RAVER. The 1954 figures were the same as in 1953.

Senator CORDON. What were they?

Mr. RAVER. $1,212,720 revenue, $428,600 annual cost of facilities, and $784,120 left for contribution of the main transmission system costs.

Senator CORDON. Where are your operating costs?

Mr. RAVER. They are in this 9 percent annual charge for this investment we are asking to make here.

Senator CORDON. This investment has to have charged to it its share of the total operating overhead of Bonneville. You cannot run that line and say that is that. You have it broken down, do you?

Mr. RAVER. No.

Senator CORDON. Do you have it charged with what it should be charged with, its share of the total operating costs based upon a percentage of value that is there and service rendered?

Mr. RAVER. I will have to make an estimate of that. That would come out of this $784,120 which is left over.

Then in 1955, 1956, and 1957, we begin to take up in blocks a portion of this firm power of the Chelan public utility district.

In 1957 to take the end result of that, our total revenue in that year would be $3,150,000, the incremental cost of facilities still being $428,600 and the balance remaining for such costs as you indicated $2,721.400.

Senator CORDON. It is a remarkable investment.

Am I to understand from your figures that the net profit or net profit over and above operating expenses the first year is $700,000?

Mr. RAVER. No; that is the amount over and above the cost of this particular facility.

Senator CORDON. I am not interested in that, and neither will the committee be interested in it. I am interested in when you can retire this investment from the net revenues which can be made applicable to that purpose.

Will you furnish that?

Mr. RAVER. Yes, sir.

(The information requested is as follows:)

Service to Wenatchee Aluminum Plant, Revenues and costs

Year	Total revenue[1]	Total cost[2]	Net revenue
1953	[3] $1,212,720	$800,600	$412,120
1954	1,212,720	800,600	412,120
1955	2,181,360	1,400,300	781,060
1956	2,665,680	1,711,400	954,280
1957	3,150,000	2,022,500	1,127,500

[1] Includes revenues from sale of jower to aluminum plant, from firming power for Rock Island and transfer charges on power sold by Chelan County PUD to aluminum plant. Interruptible power revenues are calculated on 12 months' operation basis. On a 6 months' operation basis for interruptible power net revenue would be $129,620 in 1953 and $845,000 in 1957.

[2] Includes cost of generation, incremental cost of main system transmission and incremental cost of facilities for service to aluminum plant.

[3] Does not include revenue from sale of additional interruptible power to supply full plant requirements until sufficient generation is available from Rock Island. This additional revenue is estimated at $755,000 over period July 1, 1952 to May 1, 1953.

NOTE.—Normal amortization of facilities included in cost would be based on an average of approximately 27 years for these facilities. Application of the net revenues to more rapid amortization of the acilities would repay the incremental investment of $3,672,000 in approximately 5 years.

Mr. RAVER. The annual requirement to do that in case of a substation, whether this one, or any one, is 12.1 percent.

The annual requirement to do that same thing on the transmission lines we are constructing here is 5.99 percent of the investment.

Those are averages for the entire system which we use for financial purposes.

Senator CORDON. Does it mean that the metal pole type transmission requires double the amount of money for its retirement than the wood pole does, or a little better?

Mr. RAVER. My first figure was the substation. I was talking about substation, 12.1 percent for the retirement of the equipment in the substation, amortization, operation, interest, and retirement. That includes the operation and maintenance cost as well.

Senator CORDON. Whatever might be done with respect to the location of this plant, the contract between Alcoa and the other two contracting parties—Chelan PUD and Bonneville Power Administration—has been executed?

Mr. RAVER. I am not sure it is actually signed. It has been agreed to.

The Chelan contract has been signed. I do not believe ours with Alcoa has actually been signed as yet.

Senator CORDON. The facilities that appear here in this justification are the minimum that are essential to the effectuation of that agreement.

Mr. RAVER. The money here in this; yes.

Senator CORDON. The money and the thing that is represented by the money, the transmission lines and one complete new substation in addition to another one?

Mr. RAVER. That is right.

Senator CORDON. That is all, Mr. Chairman.

Senator ELLENDER. Must you increase capacity at Bonneville to continue furnishing the power that you contemplate selling to this new facility, that is, the aluminum plant?

Mr. RAVER. Fifty to sixty thousand kilowatts, I would say, because the area is getting an additional 120,000 kilowatts of power that it otherwise would not have by the installation of new generators in the Rock Island Dam.

Senator ELLENDER. You misunderstood my question.

How much will you have to add to your present facility at Bonneville other than what you are asking for?

Mr. RAVER. We add nothing.

Senator ELLENDER. It does not involve the building of new dams or anything like that in the future?

Mr. RAVER. I would not say that. As the load grows in the region, this eventually will become, I think, a firm power commitment rather than an interruptible commitment. It should. It is better for the Government and better for our customers to have this interruptible power we have given them here which we have in existing facilities firmed up with some new facilities.

Senator ELLENDER. The thing that is back in my mind is if the Bonneville and other developments in the Northwest keep on inviting more and more business, it will mean more and more power. It will mean more and more Government expenditure to carry the projects through.

Mr. RAVER. It will mean more and more revenue also.

Senator ELLENDER. As I pointed out before I left the room, in the South we have the use of that gas that could be utilized at no Government cost. Private enterprise would do it.

That is all, Mr. Chairman.

Senator HAYDEN. That concludes the presentation on the fourth supplemental.

DEPARTMENT OF DEFENSE

MILITARY AND CIVILIAN PERSONNEL

Military personnel strengths, actual and planned, fiscal years 1951 and 1952

	Actual, June 30, 1950	Actual, Dec. 31, 1950	Proposed for June 30, 1951				Planned June 30, 1952
			Original fiscal year 1951 budget	First supplemental, 1951	Second supplemental, 1951	Fourth supplemental, 1951	
Army	591,487	1,074,066	630,000	834,000	1,263,000	1,550,000	1,550,000
Navy	376,501	555,803	373,303	579,805	689,394	735,000	805,000
Marine Corps	74,273	160,008	74,437	138,013	166,155	204,029	175,516
Air Force	411,277	559,329	416,000	548,314	651,095	850,000	1,061,000
Total	1,453,538	2,349,206	1,493,740	2,100,132	2,769,644	3,339,029	3,591,516

NOTE.—Excludes cadets at United States Military Academy and Navy officer candidates.

Department of Defense—Civilian employment, fiscal year 1951

	June 30, 1950	Dec. 31, 1950	Feb. 28, 1951	Estimated, June 30, 1951
Army	303,599	433,970	475,836	580,000
Navy	285,079	351,344	390,907	454,600
Marine Corps	8,268	14,776	17,289	18,400
Air Force	154,453	186,357	217,228	278,000
Subtotal	751,399	986,447	1,101,260	1,331,000
Office, Secretary of Defense	1,750	1,958	2,053	2,225
Total	753,149	988,405	1,103,313	1,333,225
Military personnel per civilian employee	1.9	2.4	2.5	2.5

NOTE.—Employment figures include personnel engaged on regular functions and personnel paid from other appropriations such as MDAP and Army civil functions.

Civilian personnel figures for the Department of the Navy appearing on page 273 do not include part-time employees.

FUNDS FOR CIVILIAN EMPLOYMENT

Additional funds in the amount of $32,263,000 have been requested in this supplemental estimate for civilian employment, bringing the total civilian employment estimate for regular military functions of the Department of Defense for fiscal year 1951 to $3,271,323,000.

PROCUREMENT

(See p. 245)

I. Spreader, aggregate, towed type, traction powered, 8-foot width

(*a*) The price is estimated at $855 per unit delivered for both the Army and Air Force, based on January procurement. The Army price of $855 does not include the cost of concurrent spare parts. The Army Engineer budgets for all spare parts are under a separate Engineer project.

(*b*) The Air Force price differs from the Army price only in that the Air Force has included the cost of concurrent spare parts in the amount of $224 in their overall unit cost of $1,079.

11. Ice plant, 1-ton equipment only

The current unit price for this item as stated in the Army Engineer budget estimate is $3,670 delivered.

The USAF equipment list, as submitted to the committee, was prepared in March, utilizing the estimated January 1951 price of $3,085. Procurement by the Corps of Engineers during the month of March 1951 disclosed there has been a price increase of $585 for this item. This information was not available to the USAF at the time the USAF estimate was submitted to the committee.

DEPARTMENT OF THE AIR FORCE

AIRCRAFT PROCUREMENT PROGRAM

MAY 11, 1951.

Hon. JOSEPH C. O'MAHONEY,
United States Senate, Washington 25, D. C.

DEAR SENATOR O'MAHONEY: I am writing with respect to our telephonic conversation, this date, concerning the funds requested by the Department of the Air Force in the fourth supplemental estimate for fiscal year 1951 for the "Aircraft and related procurement" appropriation.

In connection therewith, there is attached a statement which shows an analysis of total obligating authority granted to date for the "Aircraft and related procurement" appropriation, the amount requested in the fourth supplemental appropriation, and the total estimates for fiscal year 1951.

In reference to your question concerning the proposed language for this appropriation in the fourth supplemental appropriation estimates, which reads:

" 'Aircraft and related procurement', $700,000,000, to remain available until expended: *Provided*, That the aircraft procurement program heretofore established for the fiscal year 1951 is further increased by $700,000,000;"

the language is the same as that included in the Second Supplemental Appropriation Act (Public Law 911, 81st Cong.). The mention of the $700,000,000 in two sections of the language is in no wise additive. The first appearance of $700,000,000 specifies the appropriation; appearance in the proviso is for the sole purpose of indicating that there is to be no cumbersome administrative procedure for isolation of this specific amount from funds appropriated in the same fiscal year, but inclusion in an increased annual program.

As was emphasized by representatives of the Air Force at the hearings before the committee, these funds are required for obligation by 30 June 1951. The availability, therefore, could not be deferred without detriment to the program.

I shall be pleased to furnish you with any additional information which you may require.

Sincerely yours,

M. J. ASENSIO,
Brigadier General, United States Air Force,
Director of Budget, DCS, Comptroller.

Department of the Air Force—Aircraft and related procurement, fiscal year 1951 obligating authority

Appropriations	Cash	Contract authority	Total program
Basic:			
Appropriation	$1,700,000,000		
Less: Cash to liquidate	1,525,000,000		
New authority	175,000,000	$810,289,000	$985,289,000
Authority from fiscal year 1950		726,151,000	726,151,000
Total, 48-wing program	175,000,000	1,536,440,000	1,711,440,000
First supplemental	2,777,300,000		2,777,300,000
Total, 58-wing program	2,952,300,000	1,536,440,000	4,488,740,000
Second supplemental	2,114,700,000		2,114,700,000
Total, 68-wing program	5,067,000,000	1,536,440,000	6,603,440,000
Fourth supplemental request	700,000,000		700,000,000
Total estimate for fiscal year 1951 portion of 95-wing program	5,767,000,000	1,536,440,000	7,303,440,000

DEPARTMENT OF THE NAVY

PRICE INCREASES

(See also pp. 129, 310)

DEPARTMENT OF THE NAVY,
Office of the Comptroller,
Washington 25, D. C., May 15, 1951.

From: Assistant Comptroller, Director of Budget and Reports.
To: Assistant Secretary of Defense (Comptroller).
(Attention: Office of Progress Reports and Statistics.)
Subject: Effect of price increases on Navy Department procurement.

1. During fiscal year 1951 the sharp increases in the prices of the items the Navy buys had a marked effect on the Navy budget. These increases are reflected in the Bureau of Labor Statistics' indexes for manufactured products and semimanufactured products. The index for semimanufactured products increased 26.3 percent between June 1950 and March 1951, while manufactured products increased 14.5 percent during the same period. For both types of items the approximate average increase would be 20 percent. If this were applied to Navy Department fiscal year 1951 appropriations for procurement, the lost purchasing power would amount to approximately $1 billion.

2. The effect of this decrease in purchasing power can best be visualized in terms of types of end items. For example, based upon averages of the current estimated costs of various types of equipment in significant categories, the purchasing power lost by inflation represents, roughly, any one of the following: 5 large aircraft carriers, 40 destroyers, 60 submarines, 2,500 fighter aircraft, or 100,000 torpedoes.

3. The fourth supplemental 1951 budget estimates were based upon December 1950 price levels which reflected the rise in prices during the period from June to December 1950. The increases that have occurred since that time will limit the extent to which the Navy is able to fulfill the programs that involve large scale procurement. It is virtually impossible to set forth the effect of price increases applicable to any single supplemental appropriation estimate because in most instances there as no comparable "preinflation" procurement of the military items under current procurement.

4. The amounts that were specifically labeled in the fourth supplemental as "price increases" are as follows:

Military personnel, Navy:	
Travel	$4,568,000
Clothing	11,669,000
Military personnel, Marine Corps:	
Travel	2,985,000
Clothing	2,613,000
Construction of aircraft and related procurement	52,000,000
Aircraft and facilities	5,000,000
Medical care	1,200,000
Total	80,035,000

(*a*) The increase under travel represents the effect of revised Joint Travel Regulations, effective April 1, 1951. The regulations reduced officer travel rates by approximately 8 percent, but increased enlisted and dependent rates by 50 percent, an over-all increase of 33 percent.

(*b*) The amount of the clothing-price increase is based upon an increase in the cost of the "clothing bag" (initial issue of clothing to enlisted personnel) from $118.35 to $254.75 in the case of the Navy and from $148 to $231.72 in the case of the Marine Corps. In addition, maintenance allowances for clothing increased approximately in proportion.

(*c*) The $52,000,000 under construction of aircraft represents the net amount of price increases affecting aircraft components and accessories, principally electronic equipment, engines, and instruments. In general, aviation material prices have increased about 20 percent, but the economies of quantity production have tended to offset a portion of this.

(*d*) The $5,000,000 shown under aircraft and facilities represents increased costs of special aviation material and labor rates and is required to maintain the previously programed level of operations and necessary support.

(*e*) The $1,200,000 under medical care represents a 5.2 percent increase in prices for medical stores, based upon an item analysis of July 1950 to February 1951 procurement made by the Army Surgeon General, and approved by the Bureau of the Budget in their review of the supplemental estimates. The 5.2 percent was applied to the $24,296,000 value of medical stores in the 1951 Budget.

E. W. CLEXTON.

DEPARTMENT OF DEFENSE

PRICE INCREASES

(See also pp. 129, 309)

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE,
Washington 25, D. C., May 11, 1951.

MEMORANDUM FOR SENATE APPROPRIATIONS COMMITTEE

In accordance with your request I am attaching additional information with respect to price changes in relation to military budgets.

1. The Army has provided information on the total procurement to which the amounts requested for price increases in the fourth supplemental apply, as well as unit cost data as requested. Additional information is also provided by Signal Corps on the reasons for some of the large increases in unit costs which have occurred.

2. An April 1951 report on Price Changes of Air Force Procured Items is attached which, within limits, provides some information pertinent to Air Force procurement. In accordance with your request this morning we are asking Air Force to provide information on the extent to which they have reduced procurement of major items from 1951 funds because of price increases.[1]

3. The information for Navy is as yet incomplete since key personnel have been in appropriation hearings all week. They advise that their information will be available not later than Monday, May 14. We shall transmit it as soon as received.[2]

FOSTER ADAMS,
Director, Office of Progress Reports and Statistics.

DEPARTMENT OF THE ARMY'S TABLE, AMOUNTS INCLUDED IN THE THIRD SUPPLEMENTAL TO COVER PRICE INCREASE ON ARTICLES ALREADY FINANCED, FISCAL YEAR 1951

The table represents the amount of money the Army requested in the fourth supplemental appropriation (Army third) in order to cover price increases which occurred either since the second supplemental appropriation requests were being prepared or since the beginning of the fiscal year (in cases where definitive contracts were not written until after the second supplemental).

An example of the manner in which the figures were obtained is given by General Lawton on page 186 of the hearings on the fourth supplemental appropriation bill:

"You have already approved for us 50,950 of these (radio) sets in appropriations. In the budget estimates that we came up here with we figured the unit cost as $2,771. Now, since we were up here we have written a definitive contract with a contractor, and the final contract price is $2,944.

"The increased price of the unit, of this set, is $173.

"Then if we multiply the unit increase in price by 50,950 we come up to $8,000,000 plus."

In order to obtain the percent increase in the price of a particular item, it is necessary to apply the amount requested to the amount of procurement involved for each project or item. On page 148 of the hearings, Colonel Marshall gives an example of this:

"Mr. MAHON. For the special quartermaster equipment you are requesting $3,335,000.

"Colonel MARSHALL. Yes, sir. That represents a price increase only * * * That is a price increase on the funds which we had on hand on November 1; 5.1 percent price increase on $65 million."

[1] This information was filed with the committee.
[2] See this information on p. 309.

Attachment 1 shows for each project or item the amount requested in the fourth supplemental (Army third) to cover price increases, the amount of procurement to which the increase applies, and the percent increase.

Attachment 2 shows for some specific items, the unit cost as estimated in earlier fiscal 1951 budgets, the unit cost estimated in the fourth supplemental, and the percent increase.

ATTACHMENT 1.—*Amounts included in fourth supplemental (Army third) to cover price increases and the amount of procurement involved, Department of the Army*

Project or item	Amount requested to cover price increases	Amount of procurement involved	Percent increase
Quartermaster service, Army	$4,352,775	$256,045,580	1.7
Regular supplies	38,426,755	292,195,437	1.3
123 Office supplies	2,913,679	39,913,413	7.3
124 Other regular supplies	13,508,562	79,462,131	17.0
127 Special quartermaster equipment	3,335,934	65,374,860	5.1
128 Supplies for handling liquid fuels and lubricants	9,408,141	42,764,200	22.0
129 Liquid fuels and lubricants	3,811,180	31,759,833	12.0
424 Packing and crating	5,449,259	32,921,000	16.6
Clothing and equipage:			
131 Purchase of clothing and equipage	174,469,000	610,031,400	28.6
Signal service of the Army	132,206,095	343,574,894	38.5
3 AN/ORC-3-8 radio set	8,832,000	141,182,450	6.2
5 AN/MPQ Mobile counter motor fire control radar	4,160,000	13,800,000	30.0
7 Pu-181 ( )/PGC-1 power unit	712,096	570,770	124.7
16 TC-21 telephone terminal set	267,930	8,830,420	3.0
17 TC-22 telegraph terminal set	312,051	1,629,240	19.2
18 U-17 ( ) MTQ truck	2,150,000	7,448,227	28.9
19 AN/TRC 12 radio relay set	2,058,960	4,142,148	49.7
20 CX-1065 ( )/G cable assembly	2,304,225	24,148,399	9.6
21 SB-22 ( )/PT switchboard, portable	14,633,056	8,099,150	180.7
22 SB-86 ( )/P switchboard	6,549,871	1,711,000	382.8
23 AN/GRR-5 radio set	2,644,800	1,923,200	137.5
24 AN/MRC-2 radio set	1,251,250	4,068,000	30.8
25 AN/TCC-4 telegraph terminal set	8,327,016	8,533,390	97.6
26 AN/TND-1 sound ranging set	4,335,000	2,142,252	202.4
27 AN/TRC-11 radio terminal set	1,841,520	2,967,796	62.1
28 AN/TRC-24 radio set	67,115,125	19,789,056	339.2
29 WD-1 ( ) TT wire	3,017,295	91,240,400	3.3
30 AN/TLB-1 search receiver	1,693,900	1,348,996	125.6
Engineer service, Army	34,242,285	345,000,000	9.9
Ordnance service and supplies, Army [1]:			
120 Procurement of ammunition: Artillery ammunition	187,000,000	1,892,272,508	9.9
Maintenance and operation, U. S. Military Academy	98,000	593,054	16.5
Total	570,794,910	3,739,722,873	15.3

[1] Projects 131 and 133, Ordnance service and supplies, have been omitted from the tabulation because the increase in prices on those items was due to—

Project 131—changes in specifications and modifications of the end item; project 133—the original estimated contract cost was submitted without benefit of production engineering or drawings. (See p. 241 of hearings on fourth supplemental.)

ATTACHMENT 2.—*Comparison of unit costs of selected items as estimated in fourth supplemental (Army third) and in earlier budget request*

	Item	Unit cost in earlier budget requests	Unit cost in fourth supplemental	Percent increase
3	AN/ORC-3-8-radio set	$2,771	$2,944	6.2
5	AN/MPQ mobile counter motor fire control radar	100,000	130,000	30.0
7	Pu-181 ( )/PGC-1 power unit	333	748	124.7
16	TC-21 telephone terminal set	6,670	6,870	3.0
17	TC-22 telegraph terminal set	6,389	7,611	19.1
18	U-17( ) MTQ truck	7,758	10,000	28.9
19	AN/TRC 12 radio relay set	7,477	11,190	49.7
20	CX-1065 ( )/G cable assembly	151	165	9.3
21	SB-22 ( )/PT switchboard portable	518	1,454	180.7
22	SB-86 ( )/P switchboard	994	4,802	383.1
23	AN/GRR-5 radio set	400	950	137.5
24	AN/MRC-2 radio set	36,649	48,125	31.3
25	AN/TCC-4 telegraph terminal set	6,161	12,174	97.6
26	AN/TND-1 sound ranging set	4,959	15,000	202.5
27	AN/TRC-11 radio terminal set	4,733	7,673	62.1
28	AN/TRC-24 radio set	4,597	20,185	339.2
29	WD-1 ( ) TT wire	92	95	3.3
30	AN/TLB-1 search receiver	29,326	65,150	122.2

SIGNAL SERVICE OF THE ARMY

PRICE INCREASES OF ITEMS OF SIGNAL COMMUNICATIONS EQUIPMENT

1. The fiscal year 1951 budget estimates (basic, first, and second supplemental) were based on—

a. Prices paid for items previously procured prior to July 1, 1950, on an advertised basis.

b. On those items which had never been previously procured our engineers estimated the cost based on the latest procurement of like items.

2. Contract prices paid for items procured this fiscal year have been based on advertised bids, where the item was susceptible, and negotiated basis.

3. In general the price rise subsequent to June 30, 1950, is occasioned by—

a. Some inflation;

b. Increased cost of labor (including payment of overtime) in order to obtain early deliveries which are required as a military necessity;

c. Some material shortages which increase material prices to obtain the commodity;

d. Additional tooling and engineering costs in order to obtain several producers of the same item;

e. Changes in specification in order to meet requirements and obtain the maximum quality of a military communications system such as subminiturization;

f. The increased Federal excise tax on communications equipments.

4. Detailed reasons for price increases of items in third supplemental estimate:

a. Those items which were previously procured follow:

Item	Old price	New price
(1) AN/TRC-12 radio relay set. The original estimated cost of this radio set was based on a fiscal year 1949 contract awarded under competitive bidding. The general price rise of labor and material since the Korean situation and the acquisition of an additional source necessitated a further cost for tooling and engineering which contributed to the increased cost of the item.	$7,477	$11,190
(2) SB-22 switchboard. The original estimate for this switchboard was based on a Signal Corps engineering estimate computed at pre-Korea prices. In order to obtain required production, 4 sources of supply were necessary, resulting in additional costs for tooling and engineering which contributed to the increased cost of this item.	518	1,454

b. Those items which have not been previously procured:

Item	Budget estimated price	Contract price
(1) PU-181( )PGC-1 power unit. The original unit cost was based on a Signal Corps engineering evaluation made during fiscal year 1950, prior to the general price rise. Further, since 2 sources of production are required for this item, the resulting dual cost of tooling and engineering contributed to the increased cost.	$333	$748
(2) AN/TND-1 sound ranging set. The original estimate for this sound ranging set was based on a Signal Corps engineering estimate. The increased cost of basic components since the Korean situation, plus costs for tooling and engineering for additional sources to meet production requirements has contributed to the increased costs of these items.	4,959	15,000
(3) AN/TLR-1 search receiver. The original estimate for the search receiver was based on a Signal Corps engineering estimate. The increased cost of basic components since the Korean situation, plus costs for tooling and engineering for additional sources to meet production requirements has contributed to the increased costs of these items.	29,326	65,150
(4) SB-86 switchboard. The original estimate for this switchboard was based on a Signal Corps engineering estimate. The increased cost of basic components since the Korean situation, plus costs for tooling and engineering for additional sources to meet production requirements has contributed to the increased costs of these items.	994	4,802
(5) AN/GRR-5 radio set. The original estimate for the radio set was based on a Signal Corps engineering estimate. The increased cost of basic components since the Korean situation, plus costs for tooling and engineering for additional sources to meet production requirement has contributed to the increased costs of these items.	400	950
(6) AN/TCC-4 telegraph terminal set. The original estimate for the radio set was based on a Signal Corps engineering estimate. The increased cost of basic components since the Korean situation, plus costs for tooling and engineering for additional sources to meet production requirements has contributed to the increased costs of these items.	6,161	12,174
(7) AN/TRC-24 radio set. The original estimated unit cost of this radio set was made by the Signal Corps engineers based on the prior procurement of a similar item. However, a newly developed transceiver was not taken into account and included in the estimated cost of this item. The inclusion of this major component in the set plus added costs for production engineering and tooling by 5 manufacturers to obtain the production required, contributed to the increased cost of this item.	4,597	20,185

CIVILIAN PERSONNEL

Appropriation	Fourth Department of the Army supplemental			Available, fiscal year 1951 [1]		
	Positions	Man-years	Amount	Positions	Man-years	Amount
Contingencies of the Army				1,521	1,256	$4,151,300
Special field exercises				108	108	276,200
Inter-American Relations, Department of the Army				6	6	21,000
Finance Service, Army	9,290	2,938	$8,036,000	42,423	32,250	99,039,440
Pay of the Army	(6,411)	(1,987)	(5,325,000)	(28,967)	(21,852)	(64,426,500)
Finance Service	(2,879)	(951)	(2,711,000)	(13,456)	(10,398)	(34,612,940)
Quartermaster Service, Army	2,474	748	2,311,000	90,034	72,056	193,982,828
Welfare of enlisted men				(3,077)	(2,150)	(7,557,880)
Regular supplies of the Army				(630)	(576)	(1,162,763)
Clothing and equipage				(24,838)	(21,242)	(38,618,924)
Incidental expenses	(2,474)	(748)	(2,311,000)	(61,489)	(48,088)	(146,643,261)
Transportation Service, Army				41,205	35,910	107,240,924
Signal Service, Army				42,007	33,508	122,958,772
Medical and Hospital Department, Army	6,858	1,312	2,977,873	25,826	17,330	52,397,685
Engineer Service, Army				77,954	65,099	204,701,767
Ordnance Service and supplies, Army				145,474	117,623	227,299,640
Chemical Service, Army				9,409	6,108	22,173,425
Army training				3,562	2,703	8,875,695
Maintenance and operation, U. S. Military Academy			97,766	1,274	1,246	4,000,168
Army National Guard				2,017	1,605	6,262,425
Organized Reserves				3,403	3,031	9,159,966
ROTC				443	272	937,977
Promotion of rifle practice				33	29	88,265
Salaries, Department of the Army				17,468	14,823	57,456,083
Total	18,622	4,998	13,422,639	504,167	405,563	1,121,023,560

[1] Includes fourth supplemental.

DEPARTMENT OF THE AIR FORCE

CIVILIAN PERSONNEL

Civilian personnel, fiscal year 1951 (excludes MDAP working and management fund personnel)

Appropriation and project	End-month strength		Estimated strength, June 30, 1951	Presently available		Fourth supplemental		Revised estimates	
	June 30, 1950	Feb. 28, 1951		Man-years	Funds	Man-years	Funds	Man-years	Funds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Aircraft and related procurement:									
Mobilization planning and administration 184	256	389	947	471	$2,328,480	0	0	471	$2,328,480
Procurement and production administration 191	4,009	6,539	10,026	6,240	29,111,939	0	0	6,240	29,111,939
Total	4,265	6,928	10,973	6,711	31,440,419	0	0	6,711	31,440,419
Acquisition and construction of real property: Acquisition and construction, continental United States 321	7	70	82	62	358,513	0	0	62	358,513
Maintenance and operations:									
Depot maintenance, Regular Air Force 431	31,272	53,105	64,674	46,703	164,866,000	0	0	46,703	164,866,000
Depot maintenance, Reserve 431R	1,406	385	250	488	1,600,000	0	0	488	1,600,000
Depot supply operations, Regular Air Force 432	17,615	27,683	35,044	24,830	78,998,000	0	0	24,830	78,998,000
Depot supply operations, Reserve 432R	120	69	0	90	271,000	0	0	90	271,000
Aeronautical chart service 435	1,276	1,634	2,143	1,597	6,137,000	0	0	1,597	6,137,000
Base operations and maintenance 438	20,037	24,021	29,097	23,567	77,628,000	0	0	23,567	77,628,000
Schools and training 443	2,561	3,816	5,340	3,497	14,492,000	0	0	3,497	14,492,000
Operation of air ROTC institutions 447	82	4	0	20	37,257	0	0	20	37,257
Base operations and maintenance, Air Force 448	11,299	17,112	23,619	15,539	50,812,000	0	0	15,539	50,812,000
Base operations and maintenance, Reserve 448R	2,446	2,159	497	1,833	6,472,320	0	0	1,833	6,472,320
Base operations and maintenance 458	32,461	40,787	54,537	40,805	124,723,000	0	0	40,805	124,723,000
Do 468	5,329	8,523	11,565	7,627	27,630,000	0	0	7,627	27,630,000
Education and training 473	92	39	38	38	494,000	0	0	38	494,000
Care of the dead 476	8	7	10	9	25,695	0	0	9	25,695
Medical administration 477	157	222	316	230	806,840	0	0	230	806,840
Operation and maintenance of medical treatment facility 478	2,715	3,537	5,615	3,626	10,317,076	0	0	3,526	10,317,076
Command administration 481	11,763	16,864	22,460	15,527	64,518,734	0	0	15,527	64,518,734
Mission and air attaché offices 483	241	251	311	260	659,880	0	0	260	659,880
Total	140,880	200,218	255,716	186,186	630,488,802	0	0	186,186	630,488,802
Research and development: Laboratory operations 691	7,015	7,214	9,425	7,481	36,072,862	0	0	7,481	36,072,862

Civilian personnel, fiscal year 1951 (excludes MDAP working and management fund personnel)—Continued

Appropriation and project	End-month strength		Estimated strength, June 30, 1951	Presently available		Fourth supplemental		Revised estimates	
	June 30, 1950	Feb. 28, 1951		Man-years	Funds	Man-years	Funds	Man-years	Funds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Air National Guard:									
Depot maintenance.....431	1,043	1,066	1,082	1,082	$3,616,000	0	0	1,082	$3,616,000
Depot supply operations.....432	350	0	158	158	458,000	0	0	158	458,000
Total.....	1,393	1,066	1,240	1,240	4,074,000	0	0	1,240	4,074,000
Grand total.....	153,560	215,496	277,436	201,680	702,434,596	0	0	201,680	702,434,596

(Whereupon, at 11:30 a. m., Friday, May 11, 1951, the hearing was closed.)

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